# Final Environmental Impact Statement

**Mohawk Valley Health System (MVHS)**
**Integrated Health Campus**
**Utica, New York**

March 2019

FEBRUARY 2019 | 30780 | 67677

# Final Environmental Impact Statement

## Mohawk Valley Health System (MVHS)
## Integrated Health Campus
## Utica, New York

Lead Agency: Utica City Planning Board
1 Kennedy Plaza
Utica, NY 13502

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| Date of Acceptance by Lead Agency: | March 21, 2019 |

March 2019

**PREPARED BY**
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# 1. INTRODUCTION

## 1.1 PROJECT DESCRIPTION

### 1.1.1 Project Purpose (Public Need and Benefit)

Faxton St. Luke's Healthcare (FSLH) and St. Elizabeth Medical Center (SEMC) affiliated in 2014 to become the Mohawk Valley Health System (MVHS)[1]. While MVHS is a private entity, its mission is to provide excellence in public healthcare for its community. Substantial effort has been focused on consolidating existing resources, eliminating redundancies, expanding the depth and breadth of services, improving access and elevating the quality of healthcare services in the region. MVHS has achieved some success, but it has been constrained by the age and physical limitations of the existing facilities.

As summarized below (Table 1), MVHS is currently comprised of three locations (see Figure 1).

**Table 1. MVHS Campus Locations**

| FSLH Campus Locations | SEMC Campus Location |
|---|---|
| St. Luke's Campus<br>1656 Champlain Avenue<br>Utica, NY | SEMC Campus<br>2209 Genesee Street<br>Utica, NY |
| Faxton Campus<br>1676 Sunset Avenue (1675 Bennett Street)<br>Utica, NY | |

To further its goal of delivering higher quality, more effective care with better community outcomes at a lower cost, the Integrated Health Campus (IHC) will combine services from both the St. Luke's and SEMC campuses, replace the St. Luke's and SEMC campuses, reduce the number of beds in the community, and consolidate patient services at the IHC campus.[2] In accordance with Article 28 of the Public Health Law, MVHS has applied for a Certificate of Need (CON) from the New York State Department of Health (NYSDOH) pursuant to which it would be the sole operator of the IHC.

While MVHS is a private entity, the IHC is a public facility that will serve public needs and receive public funding. MVHS's decision to consolidate these two campuses to a single facility was motivated by several key factors and public need considerations:

- The desire and need to build a facility with the newest technology, services and advancements in patient safety and quality so that our community can receive the most up-to-date healthcare services that rivals those found in large cities
- The growing demand for healthcare due to the rapidly increasing and aging population in this region
- The increasing need to improve accessibility and availability by attracting specialists and providing services that otherwise would not be available to our community
- The opportunity to gain greater operational efficiencies through the elimination of duplicative and redundant functions will help to reduce the rate of increase in healthcare spending and to achieve improved financial stability

[1] Mohawk Valley Health System is the Sole Corporate Member of Faxton-St. Luke`s Healthcare, St. Elizabeth Medical Center, St. Luke's Home Residential Health Care Facility, Senior Network Health, LLC, Visiting Nurse Association of Utica and Oneida County, Inc., and Mohawk Valley Home Care, LLC. Together, the system is governed by one Board of Directors. MVHS is referred to as the "Applicant" and "Project Sponsor" throughout this document.
[2] Services offered at the Faxton Campus will not move to the new IHC.

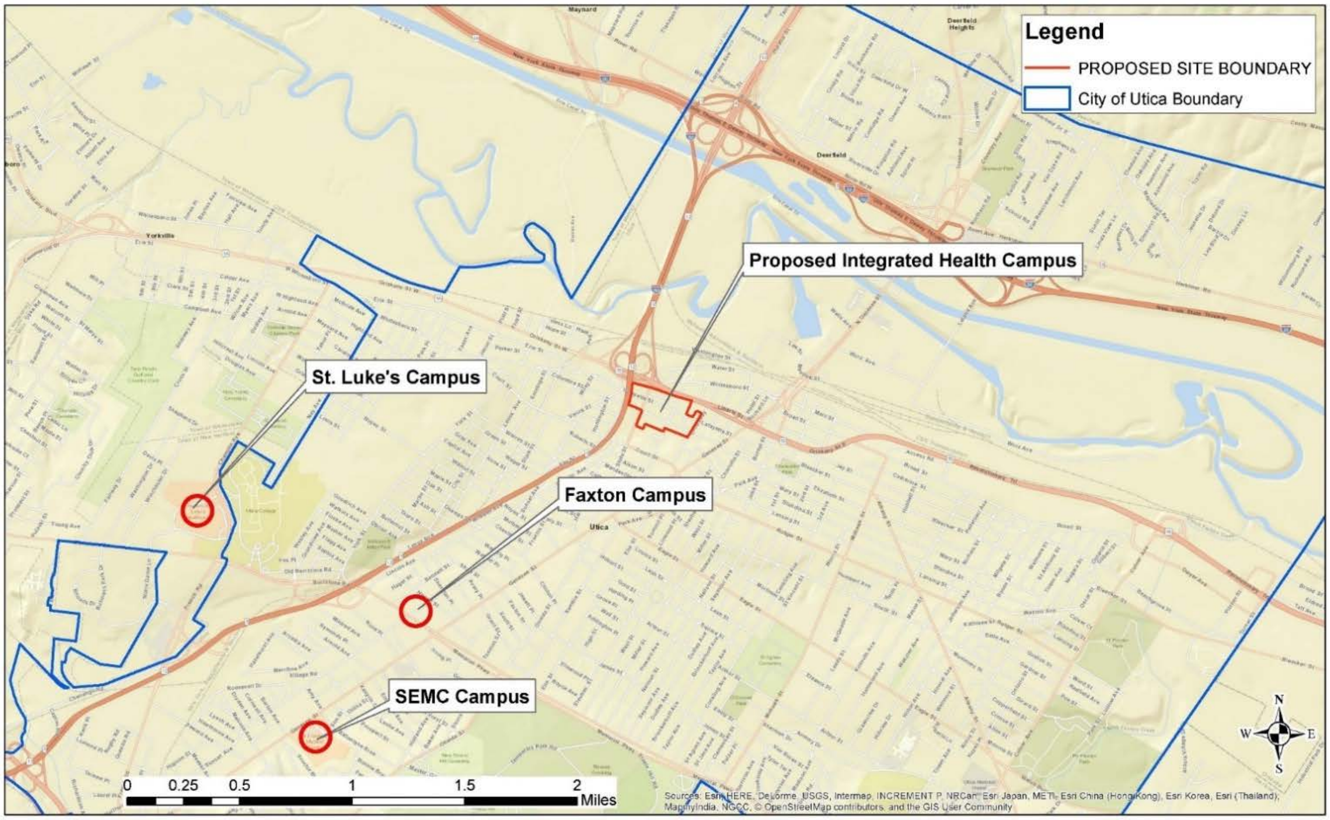


**Figure 1. Existing MVHS Campuses**

The Project also includes a proposed collaborative affiliation between MVHS and the Masonic Medical Research Laboratory. Research space is proposed within the new IHC that will allow Masonic laboratory researchers working behind the lab bench and MVHS clinicians working at patients' bedsides to collaborate and create new and innovative research and clinical benefits for the Mohawk Valley and beyond. Additional information regarding the public need for the Project was included in the CON application provided as Appendix A to the previously issued Draft Environmental Impact Statement (DEIS), which is incorporated herein by reference (www.cityofutica.com).

### 1.1.2 Background and History

Funding for the Project will be furnished, in part, by New York State via the Oneida County Health Care Facility Transformation Program, which provided capital funding ($300 million) "in support of Projects located in the largest population center in Oneida County that consolidate multiple licensed health care facilities into an integrated system of care."[3]

The MVHS Board of Directors, with the Hammes Company, a healthcare consulting firm, and the Mohawk Valley Economic Development Growth Enterprises Corporation's (Mohawk Valley EDGE or EDGE) engineering and planning professionals, engaged in a process to evaluate alternative sites for the Project (see Section 2). Criteria used to evaluate 12 potential sites included: infrastructure (water, sewer, power), access, transportation network, capacity to accommodate hospital operations and parking, and no adverse impact on existing hospital operations.

The MVHS Board unanimously selected the downtown Utica site (Project Site or Downtown Site) based on the site-selection criteria (above), as well as its central location, urban revitalization opportunities, and alignment

[3] https://www.nysenate.gov/legislation/laws/PBH/2825-B

with the NYS legislation that allocated $300 million for projects located in Oneida County's largest population center.

Other factors that support the downtown location (see Section 1.1.3) include: regional accessibility with proximity to major highways, public transit systems, and the support of the regional community and government stakeholders.

### 1.1.3 Project Location

The MVHS IHC will encompass approximately 25-acres (see Figure 2), which will generally be bounded by Oriskany Street (NYS Route 5S) to the north, Broadway to the east, NYS Route 5/8/12 to the west, and Columbia Street, City Hall and Kennedy Apartments to the south. The proposed location is proximal to the City's urban core, as well as the City's proposed "U" District, existing Brewery District, Bagg's Square and Utica Harbor Point. This area has been targeted by the City of Utica for economic redevelopment for years making it a prime location for consideration by MVHS (see "Property Acquisition" below).

### 1.1.4 Project Elements

As illustrated on Figure 3, the MVHS IHC will include the following elements:

- Hospital building
- Central Utility Plant (CUP)
- Parking facilities (including one municipal parking garage and multiple surface lots)
- Future medical office building (MOB) (by private developer)
- Campus grounds
- Hospital helipad
- Pedestrian/utility bridge over Columbia Street

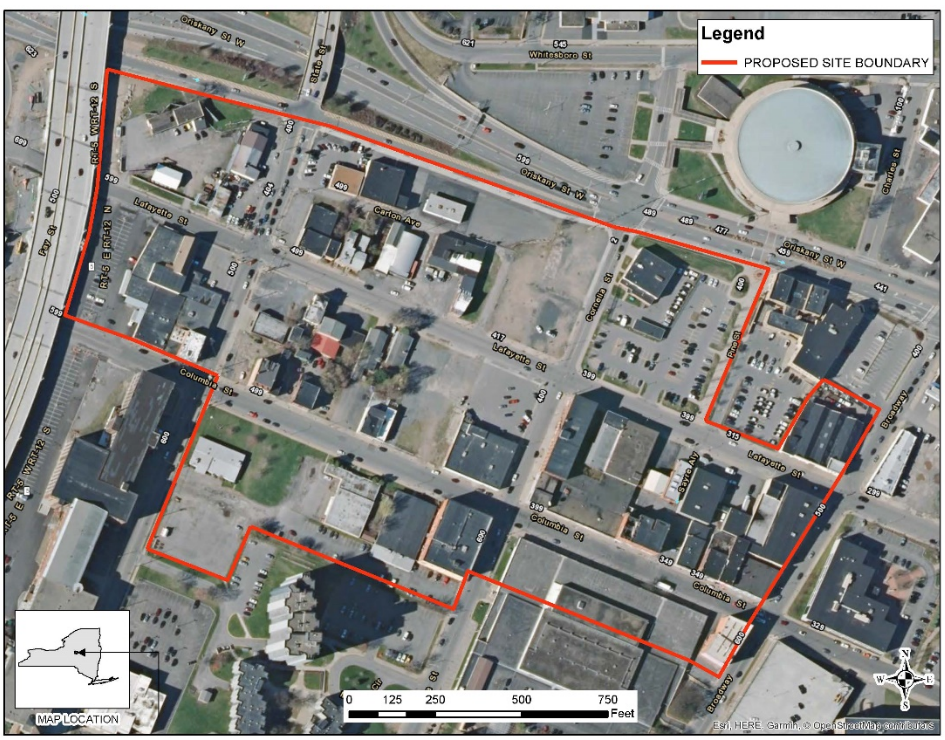


**Figure 2. Proposed IHC Boundary**

To accommodate the proposed MVHS IHC, the proposed Project will involve the acquisition of properties and modifications to existing public/private utility infrastructure. Descriptions of the Project elements are provided below.

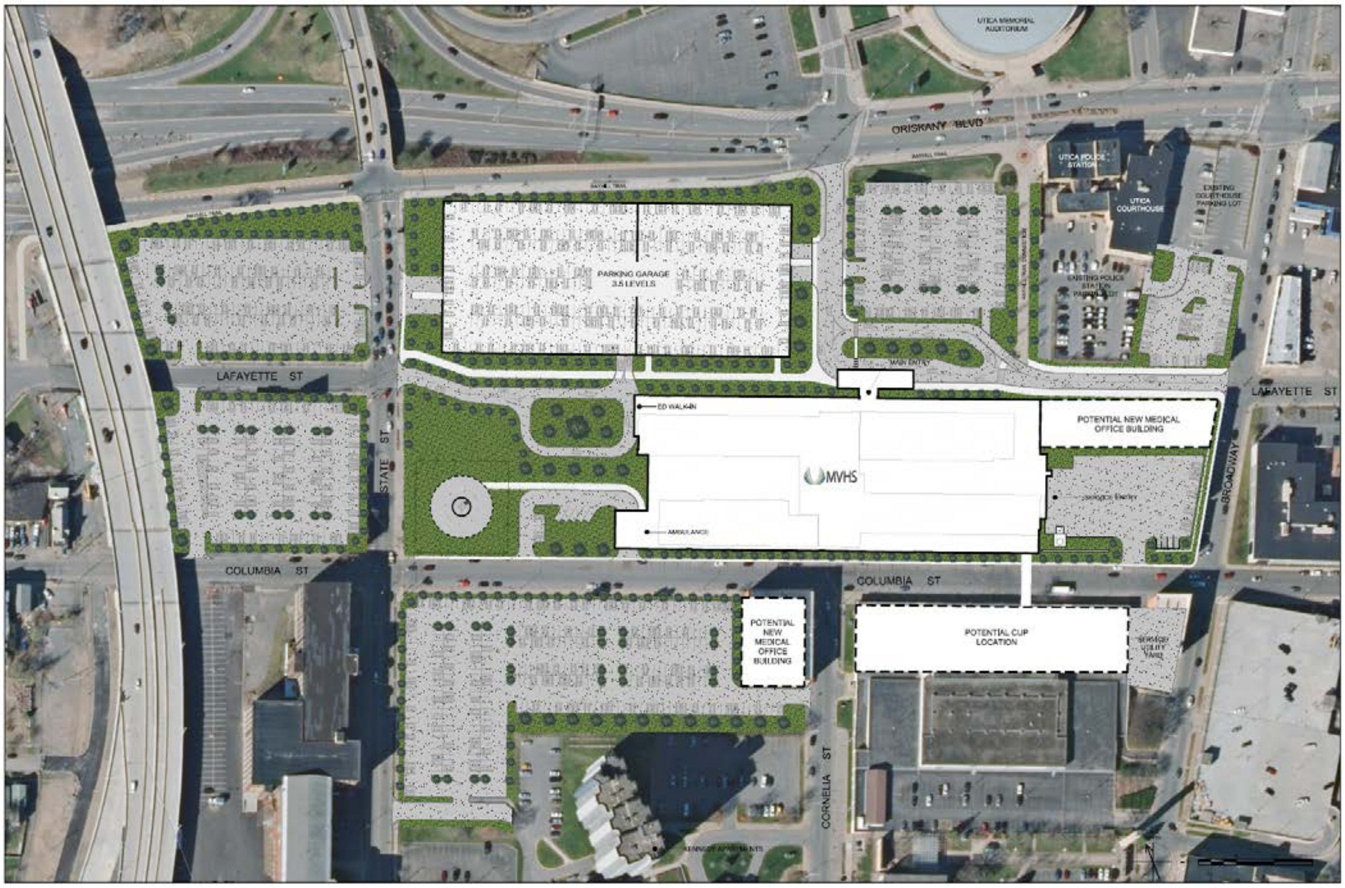


**Figure 3. Integrated Health Campus (IHC)**

## Facilities

### *Hospital Building*

The proposed 670,000± square foot (sf) hospital building will be constructed on parcels located west of Broadway and will extend through Cornelia Street onto parcels located east of State Street. The hospital building consists of a two-story podium and a seven-story bed tower.

Most services currently provided at the St. Luke's and SEMC campuses will be transitioned to the MVHS IHC including 373± inpatient beds (see below). MVHS plans to facilitate the adaptive reuse of the vacated space at the existing facilities (see Section 8 of the DEIS).

### *Central Utility Plant (CUP)*

From a facilities perspective, the consolidation of two aging facilities (100 and 60 years) will provide an opportunity for a more energy-efficient environment, with a state-of-the-art IHC that meets and exceeds current day best practices and building codes and promotes energy and water conservation and other sustainable measures that will reduce the overall amount of resources used by MVHS.

A CUP will service the hospital. MVHS proposes to repurpose space within the existing Kennedy Garage Building, currently owned and occupied by Mohawk Medical Equipment (MME), as the hospital's CUP. The façade of the space will be improved, and a utility and pedestrian bridge will be constructed over Columbia Street from the hospital's 2nd floor to the CUP's 2nd floor.

The CUP will house three centrifugal chillers, a heat recovery chiller and four steam and eight hot water heating condensing boilers, each of which will be fueled by both natural gas and No. 2 Fuel oil. A 50,000-gallon underground storage tank (UST) used to store the No. 2 fuel/diesel oil will be installed east of the CUP in the service yard (for emergency generators). A 30,000-gallon aboveground storage tank (AST) used to store emergency water for fire protection will also be located in the service yard.

### *Parking Facilities*

Parking facilities constructed under this Project will consist of a three-story, municipally-owned parking garage (1,550± spaces) and multiple surface parking lots (780± spaces), for a total of approximately 2,330 spaces. Dedicated spaces are summarized below:

*Hospital (1,455± spaces)*

- 1,050 spaces (parking garage)
- 405± spaces (parking lots)

*Medical Office Building (MOB) (375± spaces)*

- 375± spaces (parking lots)

*City-dedicated spaces (500 spaces)*

- 500 spaces (parking garage)

The parking garage will provide approximately 1,550± parking spaces and the parking lots will allow for an additional 780± parking spaces. Proposed surface parking space needs have been reduced from 1,100± spaces (DEIS) to 780± spaces. The reduction includes the elimination of a proposed surface parking lot originally proposed at the site of the existing Police Maintenance Facility (see Figure 3 of this FEIS Responsiveness Summary). These parking facilities will be available for use by patients, visitors, staff, and volunteers, with the garage spaces being available for hospital-related parking, as well as to the community for non-hospital related events.

### *Future MOB*

A future MOB is proposed. It is anticipated that the MOB would be owned and operated by a private developer. As illustrated on Figure 3, the proposed location of the MOB is south of Columbia Street and west of Cornelia Street.[4]

[4] An alternative MOB location within the footprint is south of Lafayette Street and west of Broadway.

### *Campus Grounds*

The campus will be designed as an urban park with enhanced lighting, trees, pedestrian walkways and seating areas. A pedestrian walkway will replace a portion of Lafayette Street. This walkway will extend from the main entrance to the west, terminating at State Street. An additional segment of the walkway will provide access to the Emergency Department (ED) entrance. Outdoor areas will include gardens and other design considerations to create a healing, walkable environment. Figure 4 and Figure 5 illustrate existing and proposed conditions.


**Figure 4. Existing Conditions: Oriskany Street Looking Northwest**

**Figure 5. Proposed Conditions: Oriskany Street Looking Northwest**

***Hospital Helipad***[5]

Similar to existing operations at FSLH and SEMC[6], the IHC will have an emergency helipad. Hospital sites generally like to locate the helipad as close as practical to the emergency/trauma area for ease of patient transport. To facilitate access to the ED, a ground-based (vs. rooftop) hospital helipad, designed to Federal Aviation Administration (FAA) specifications, will be situated to the west of the hospital building, adjacent to the ED ambulance entrance and north of Columbia Street. Use of the helipad will be intermittent; approximately 40± annual emergency flights to the hospital are anticipated.[7] Operating procedures for the existing helipads are summarized in DEIS Appendix B; similar procedures will be implemented at the downtown IHC.

**Property Acquisition**

The Project includes the acquisition of the 25± acres of property in a distressed area of Utica that is designated as a Federal "Historically Underutilized Business" (HUB) Zone, a former Empire Zone, and a New York State Department of Environmental Conservation (NYSDEC) designated "Potential Environmental Justice (EJ) Area." The Project is also located in the Urban Renewal Plan Utica Downtown Development Project Area. Locating hospital services within walking distance of the most at risk population is a viewed by the Project Sponsor (MVHS) as a community character and EJ benefit.

**Figure 6. 335 Columbia Street Facing Southeast**

A HUB Zone is a qualified census tract designated by the United States (US) Department of Housing and Urban Development (HUD) with either: (1) a poverty rate of at least 25 percent; or (2) 50 percent or more of its householders must have incomes below 60 percent of the area median household income. An EJ area is a U.S. Census block group of 250 to 500 households each that, in the Census, had populations that met or exceeded at least one of the following statistical thresholds: (1) At least 51.1% of the population in an urban area reported themselves to be members of minority groups; or (2) At least 23.59% of the population in an urban or rural area had household incomes below the federal poverty level. An empire zone was an area of up to two non-contiguous miles, in which tax incentives were offered by the State of New York to bring new businesses and jobs to the State. The Urban Renewal Plan Utica Downtown Development Project Area was established to eliminate slums, blight and obsolete buildings and create sites for new buildings in order to revitalize this area of downtown.

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[5] In contrast to a heliport, a helipad (or helistop) is a location designated for helicopters to land and take off without facilities for refueling or repair. A hospital helipad is limited to serving helicopters engaged in air ambulance, or other hospital related functions.

[6] Helipad operations at FSLH and SEMC will cease upon the transfer of operations to the IHC.

[7] MVHS does not own or operate medevac helicopters, which is provided by a third-party specialty service. Operations are not scheduled events, but episodic. MVHS's primary use of medevac helicopters is for transfer out of patients to larger tertiary care/specialty hospitals. The example types of transport may be neonates, trauma, and other higher level of care services. Annual cumulative helicopter landings at St. Luke's and SEMC have ranged from 15 to 37 between 2014 and 2017 (MVHS 2018); according to MVHS, approximately 50% of the existing medevac flights are patients leaving the hospital for another facility. No significant increase or decrease in landings at the downtown IHC are anticipated.

According to the City's Master Plan, the City's urban landscape is characterized by vacant or significantly under-utilized industrial buildings and many of its neighborhoods are either deteriorating or continuing to decline. As illustrated on Figure 6 to Figure 14, many of the buildings/properties within the Project footprint are representative of these blighted conditions (see below).

**Figure 7. 336 Columbia Street Facing South**

**Figure 8. Haberer Building Looking Northwest (336 Columbia Street)**

**Figure 9. 338 – 358 Columbia Street Looking Northwest**

**Figure 10. 406 Columbia Street Looking East-Northeast**

**Figure 11. 317 Lafayette Looking Northwest**


**Figure 12. 418 Lafayette Street Facing North**


**Figure 13. 510 – 512 Lafayette Street Looking Northwest**

**Figure 14. 529 Oriskany Street Looking Northeast**

The Urban Renewal Plan for the area encompassing the Project Site states that its purpose is “to revitalize this area of downtown.” According to the Urban Renewal Plan, the “economic and physical revitalization of the project area is a critical public purpose for the community because of the area’s location.” In fact, the City of Utica Urban Renewal Agency (URA) is authorized to acquire property through *eminent domain* for the purposes of economic redevelopment.

MVHS has been negotiating with many of the property owners in the Project area to acquire the property through voluntary acquisitions. In 2017, MVHS retained three appraisal firms to inspect the properties and prepare appraisals that would be used by MVHS to make offers to acquire the properties. Although many of the owners consented to such an inspection, some did not. Under the terms of the grant funding, once the appraisals were completed, they were submitted to DASNY for review. DASNY did not approve appraisals for properties that were not inspected. Accordingly, in December 2017, MVHS sent proposed purchase options to owners who had allowed their property to be inspected by MVHS appraisers. The proposed option sought to acquire the property based on the DASNY approved appraised value. In response to comments and public criticism that not all the owners received a purchase offer, in February 2018, MVHS sent proposed purchase options to the remaining owners based on the appraised value even though DASNY had not approved those reports.

Following the transmission of the option agreements, MVHS actively negotiated with many of the property owners to address concerns regarding the appraised value, relocation costs, timing of relocation, and environmental indemnity. Although compliance with the Federal Uniform Relocation Assistance and Real Property Acquisition Act is not required for this Project, MVHS has segregated certain funds, initially up to $1,000,000, to provide relocation assistance for affected property owners in the Project footprint to support those businesses or not-for-profit entities looking to relocate within the City of Utica or Oneida County. To assist with negotiations and relocation efforts, MVHS enlisted the aid of the Community Foundation, which is a non-profit foundation and is not a public agency subject to SEQRA. MVHS was clear that relocation assistance would be determined on a case-by-case basis based on the level of assistance needed to cover actual, reasonable and necessary moving expenses. During negotiations, MVHS agreed to pay relocation expenses to a number of property owners even though it was not lawfully obligated to do so.

While it is anticipated that most of the property will be acquired through voluntary negotiation between MVHS and private owners, it is likely that some property may need to be acquired via *eminent domain*. Many of the existing property owners and businesses will be required to relocate to other parts of Utica or Oneida County. The magnitude of the acquisition of 25± acres will be large, but most of the impacts are expected to be beneficial because it will better position the hospital to serve the largest and most diverse population in Oneida County, as well as creating the potential for secondary economic development opportunities.

### Street Closures

As currently proposed, the Project would require the following public street closures or changes in designation:

- Lafayette Street from State Street to Broadway will be abandoned by the City
- Cornelia Street from Columbia Street to Oriskany Street will be abandoned by the City
- Carton Avenue, Sayre Alley, and Pine Street will be abandoned by the City
- The former Lafayette Street from Broadway to Cornelia Street will become the main entrance to the IHC
- The former Cornelia Street from Lafayette Street to Oriskany Street will become the entrance to the new public parking garage and an alternate hospital entrance/exit

### Access/Egress

The main entrance to the hospital will be located south of Lafayette Street, proximal to Cornelia Street. In addition to the main entrance, ED walk-in and ED ambulance entrances will be located on the western portion of the hospital. Vehicular and pedestrian entries will be marked by canopy systems that provide adequate coverage for public drop off, ED walk-in and loading activities. Ambulance traffic will be provided with a large drive-thru canopy adjoined to the podium.

A service entrance will be located on the eastern portion of the hospital building, which will be accessible via Columbia Street.

As illustrated on Figure 3, the downtown IHC is located adjacent to NYS Route 5S (Oriskany Street), with interchange access to the North-South Arterial Highway (NYS Routes 5, 8 & 12).[8] The New York State Department of Transportation (NYSDOT) is currently coordinating[9] the Route 5S Safety Project, which incorporates intersection and safety improvements from Cornelia Street to Broad Street, including miscellaneous work on the side streets; work is scheduled to be completed in 2020.[10]

## Infrastructure

Based on a preliminary assessment of existing utilities and Project needs, modifications to the existing infrastructure in the Project area are anticipated. Sanitary sewer, storm sewer, and water utilities will be replaced and relocated, as needed, to remove them from the footprint of the hospital campus. Upgrades to those utilities, owned by the City of Utica and the Mohawk Valley Water Authority, will be undertaken and funded by the Project Sponsor (MVHS) as part of the overall IHC Project. Electric and natural gas infrastructure will also be replaced and re-routed in support of the Project. Those upgrades will also be funded by MVHS.

The planned improvements to the water, storm sewer and sanitary sewer infrastructure will replace the existing, antiquated arrangement with new infrastructure that is better designed and constructed to more efficiently serve development at the Project Site. The planned infrastructure improvements will result in a positive impact to the environment, because newly constructed infrastructure will result in less potable water loss due to leaks, less infiltration of ground water into sanitary sewers, and less exfiltration of sewage that can find its way into storm sewers, and ultimately the Mohawk River. The improved infrastructure will also be better able to serve surrounding and future development.

Anticipated Project-related modifications, which are to be paid for by the Project (unless otherwised noted), are summarized below.

### *Sanitary Sewers*

The Project is anticipated to generate 187,000± gallons per day (gpd) of wastewater, which will be discharged to Oneida County's Water Pollution Control Plant via City sanitary sewers and Oneida County interceptor sewers. Based on the proposed building layout, it is anticipated that the following modifications will be made to the sanitary infrastructure within the proposed Project area:

- All existing sewers in Lafayette Street, between State Street and Cornelia Street, will be abandoned/removed, including 12," 15" and 18" diameter sewer piping
- A new 15" diameter sewer on Columbia Street would need to flow in the reverse direction of the existing 15" and tie into the 48" trunk sewer on State Street
- A new section of 18" sewer will divert upstream flow from Cornelia Street to the existing 24" sewer in Columbia Street, discharging to the 33" sewer in Broadway

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[8] The NYSDOT recently completed the Route 5-8-12 North-South Arterial Viaduct Replacement project, which involved the replacement of the viaduct (the elevated portion) of NYS Routes 5, 8, and 12 over Columbia and Lafayette Streets and Oriskany Street (intersection of NYS Routes 5A and 5S).
[9] The NYSDOT has coordinated efforts with the City of Utica, Oneida County, and MVHS to incorporate downtown IHC related data and access needs.
[10] https://www.dot.ny.gov/route5ssafetyproject

Other potential new sewers include a new 15” diameter pipe in Lafayette Street, on the north side of the hospital. The location and size of sanitary laterals and connections will depend on the plumbing/mechanical design of the new hospital buildings. It is assumed each new structure will have its own service lateral(s) connecting to the City mains.

A “will serve” letter, indicating the Oneida County Department of Water Pollution Control’s ability to support the Project, was appended to the DEIS (Appendix J).

***Water Mains***

Water mains located within the new building footprint will need to be removed/abandoned. Upgrades to other smaller water mains are also required. Where new supply mains are required, the older mains would be replaced. Fire hydrants will be located along the public streets and private fire hydrants will be located within the IHC campus, as required for fire protection. Each building will be provided with its own backflow prevention device to comply with Mohawk Valley Water Authority requirements.

Peak water demand for the IHC is estimated at approximately 652 gallons per minute (gpm)[11] (See Section 2 of this FEIS Responsiveness Summary). Based on the current IHC design configuration, water mains to be replaced or installed will consist of the following:

- Older 6” and 16” mains on State Street will be replaced with a new 16” water main
- A 6”/8” main on Broadway will be replaced with a 12” pipe between Columbia Street and Oriskany Street
- Installation of a 12” water main along Oriskany Street East between State Street and Broadway
- Installation of a 12” water main (private) along Lafayette Street, between State Street and Broadway to serve the hospital
- Potential installation of booster pumps to increase flow rates and pressures necessary for fire protection to the upper floors of the proposed hospital.

A “will serve” letter, indicating the Mohawk Valley Water Authority’s ability to support the Project, was appended to the DEIS (Appendix J).

***Electric and Natural Gas***

Electric and gas utilities proximal to the proposed IHC are operated and maintained by National Grid. The gas mains and underground electric conductors are owned by National Grid. The underground conduits and vaults are owned by the City of Utica, and leased to National Grid for use.

The peak electrical demand load for the proposed IHC is estimated at 4,304.27 kW (SSR 2018). The existing infrastructure and electrical capacity of the grid will be sufficient to operate the IHC. One of the advantages to the downtown location is stable power from National Grid’s Terminal Substation at Harbor Point. The terminal substation is built with a high level of redundancy. In addition, the Project can utilize underground conduit (vs aboveground lines) to service the hospital which provides more storm resiliency.

The peak natural gas load and annual natural gas usage for the proposed IHC is estimated at 50 mcf/hour and usage of 90,000 mcf/year, respectively (SSR 2018). To meet demand and minimize disturbances to existing customers, an 80 pounds per square inch (psi) gas main would need to be installed and extended back to the existing 80 psi supply main. This would require approximately 2,500 linear feet (lf) of 6” main to be installed in already disturbed areas, which would also require crossing of the existing railroad to the north.

[11] The sanitary waste estimate does not correspond to the domestic water usage because some of the water does not get discharged to the sanitary sewer. Some of the water is used for cooking, cleaning, irrigation, humidification, human consumption, and other processes (cooling towers) which do not make it back into the sanitary sewer system.

***Stormwater Management***

The Project is required to meet Chapter 9 of the New York State Stormwater Management Design Manual (including water quality and quantity requirements) for redevelopment projects (NYSDEC 2015). The proposed site plan represents a net reduction in impervious surfaces (compared to existing conditions), which eliminates the requirement for post-construction quantity control. Re-development of the Project Site requires water quality treatment of 75% of the water quantity from disturbed areas with proposed impervious surfaces. The water quality will be treated by Vortech treatment units as approved by NYSDEC, which are placed at selected connection points to the City's stormwater system. The conveyance to the proposed treatment units will include curbing, catch basins, and piping within each parking area, as well as collection of runoff via building roof drains.

To provide sufficient capacity and drainage for the proposed hospital, and to allow the hospital construction in areas now occupied by public infrastructure, sections of existing storm sewers within the Project area will be abandoned/removed and new storm sewers will be installed. The modifications will include:

- Abandonment/removal of 12" and 15" pipe on Lafayette Street
- Removal of 36" trunk sewers from Cornelia Street, between Columbia Street and Lafayette Street
- Removal of 12" storm sewer from Columbia Street
- Installation of new 36" diameter storm sewer on Columbia Street and State Street, then boring under Oriskany Street to connect to an existing storm sewer on the north side of Oriskany Street
- Installation of new storm sewer as needed to tie-in catch basins along the route of the new storm sewer mains

An estimated 75% of the Project Site's stormwater, after required treatment, can be discharged to the planned A9.1 outfall; with the remaining 25% of the site discharging to the existing storm sewer in Cornelia Street. In addition, existing, upstream stormwater currently flowing north in the storm sewer in Cornelia Street will be re-routed to the west around the site and discharged to A9.1. This re-routing of existing stormwater from Cornelia will free up capacity for the portion of the site that will discharge there. Currently, all the existing stormwater from the site goes to either the Cornelia Street storm sewer, or the combined sewer. By re-routing existing upstream stormwater discharge, and discharging a portion of stormwater generated on the Project Site to A9.1, the total flow in the existing storm sewer in Cornelia will be reduced. The A9.1 outfall is a NYSDEC grant-funded, City project, which is anticipated to be completed within the IHC construction schedule.

**Disposition and Repurposing of Existing MVHS Campuses**

***Consolidation of Services***

MVHS summarized consolidation activities in their CON application, which was previously submitted to and accepted by the NYSDOH. The CON application was appended to the DEIS (see DEIS Appendix A) and information relative to the consolidation was summarized in DEIS Section 1.1.

*SEMC*

The SEMC site will be converted into an outpatient extension clinic to be known as "St. Elizabeth Campus". MVHS prefers that this site maintain its current Permanent Facility Identifier (PFI) Number. Pursuant to the CON application, the following programs and services will remain on the St. Elizabeth site, with no construction or relocation necessary:

- Sleep center services (Mohawk Valley Sleep Disorders Center)
- The College of Nursing
- The cardiac and thoracic surgery-related services (all of which are medical-only services; no surgical services will be provided at this site)
- Primary care and laboratory patient service center (PSC) services.

These programs and services are not currently in the hospital building. Essentially, programs currently located in the College of Nursing Building (*e.g.*, Sleep Lab, administrative services), and the physician offices in the Marian Medical Building will remain on the SEMC campus.

*FSLH*

The St. Luke's site, which will be a hospital "division," and known as the St. Luke's Campus, will retain the following services, with no construction needed:

- 24 certified, inpatient Physical Medicine and Rehabilitation (PM&R beds)
- Laboratory PSC service
- Outpatient primary care and obstetrics services
- Outpatient surgeon offices for medical visits/services.

These programs and services are not currently in the hospital building. Rather, the physician offices are in the professional office building and the Acute Inpatient Rehab unit currently resides in the nursing home building.

*IHC*

The IHC Project promotes consolidation and integration as the majority of the inpatient and outpatient services will relocate to the new hospital campus. The Project will also centralize healthcare services for Oneida County in the most populated area of the County, which is a requirement of the $300 million grant provided by the NYSDOH under New York Public Health Law Section 2825-b.

The new hospital campus and merger will:

- Enable MVHS to consolidate two existing acute care hospitals into one integrated location
- Provide greater access to residents of the City of Utica, Oneida County and the region
- Improve operational efficiency, patient satisfaction and safety for both patients and caregivers.

In particular, the overall Project will create a structured delivery system, end the current service fragmentation, increase service integration and coordinate the work of the hospitals and other community-based organizations. Furthermore, the implementation of the overall Project will reduce gaps/inefficiencies in care coordination, align with payment reform and rebalance healthcare delivery through the reduction in the number of hospital beds as care is shifted from an inpatient care model to an outpatient care model focused on population health.

In addition to improving the efficiency of staff workflow, the proposed consolidation of the two existing acute care facilities will result in a decrease in the total number of inpatient beds from a combined 571 inpatient beds at two campuses to a more efficient model with 174 fewer beds, representing a reduction of about 30%. This is achievable through having 95% private patient rooms, improved throughput metrics, reduced length of stay and a general reduction of utilization in the region, which reflects the national, State and local trends of a reduction in inpatient admissions and an increase in outpatient visits.

***Adaptive Reuse of Existing Buildings***

In regard to the St. Luke's and SEMC campuses, MVHS understands that it is in their best interest to maintain buildings under their ownership. Moreover, certain uses will remain on both campuses as detailed above. Accordingly, it is MVHS's intention to facilitate the adaptive reuse of vacated facilities. The DEIS (Section 8.2) identified the process by which MVHS, in conjunction with the Community Foundation, has solicited expertise to support the redevelopment of each campus. Since the publication of the DEIS, MVHS has retained the services of CHA to provide the required support. CHA has proposed the following services:

- Define adaptive reuses
- Assess market feasibility of such uses
- Complete feasibility analysis

- Complete zoning analysis and schematic plan preparation
- Perform Phase I Environmental Site Assessments (ESAs)
- Provide Preliminary conditions assessment
- Develop conceptual cost estimating

MVHS will also work with the Community Foundation and CHA to establish process in which MVHS will work with the neighborhood to re-develop the MVHS-owned campuses. MVHS believes that full scale demolition of the existing campuses is financially unfeasible, and that given the different building ages and types, adaptive reuse would be a better alternative.

These steps will minimize the impacts from vacating the St. Luke's and SEMC facilities until an appropriate reuse is identified. Once a redevelopment alternative is selected, it will likely be subject to its own environmental process which will be no less protective of the environment.

***Cogeneration Plant***

The 3.6 MW cogeneration plant, which became operational in 2009, currently provides energy services to Faxton-St. Luke's Healthcare, St. Luke's Home and Utica College; the facility is independently-owned and managed by Burrstone Energy Center (BEC). BEC is owned and operated by Co-Gen Power Technologies, which was formed as part of the Bette Companies with Bette & Cring. These entities are separate and unrelated to MVHS or any of its affiliates. So, whether and how that plant will continue to service its clients will be up to BEC and the remaining clients.

However, it is understood that three individual contracts exist: 1) between BEC and Utica College; 2) between BEC and St. Luke's Home and 3) between BEC and Faxton-St. Luke's Healthcare. Those contracts detail the terms of the individual agreements relative to BEC's obligations to provide energy to each entity. MVHS is not a party privy to the Utica College Agreement, but it is their understanding that it is substantially similar to the one with St. Luke's Home. That agreement, which is a requirements contract, requires that energy be provided for a 15-year term. The Agreement ends on or about August 2024. There is no provision that would terminate the St. Luke's Home agreement early based upon any changes in use or operation at Faxton-St. Luke's Healthcare.

### 1.1.5 Construction Activities

Implementation of the Project will require the physical alteration of land within the Project footprint. Generally, construction activities within the 25±-acre footprint will include:

- Installation and maintenance of construction-phase erosion and sedimentation controls (E&SCs)
- Demolition and clearing of existing targeted facilities
- Utility relocations
- Site grading
- Construction of IHC facilities and utility extensions/connections
- Site stabilization and removal of temporary, construction phase E&SCs.

In addition, construction activities will require access and egress to and from the Project Site by construction workers, as well as equipment and materials over the anticipated 40-month construction schedule.

### 1.1.6 Operation and Maintenance Requirements

The IHC will operate 24-hours per day, 7-days per week, 365-days per year.

### 1.1.7 Project Schedule (Including Phasing)

A 40-month construction schedule, beginning in 2019, is anticipated. While MVHS is not proposing a phased construction schedule, construction of the parking garage and MOB will be controlled by the City and private developers, respectively.

## 1.2 DOCUMENT PURPOSE

Pursuant to New York State Environmental Conservation Law (ECL) Article 8, SEQRA[12]; and Part 617 of Chapter 6 of the New York Codes, Rules and Regulations (6 NYCRR Part 617), environmental review must be completed for projects that may result in a significant adverse environmental impact so that these impacts can be identified and avoided or mitigated to the maximum extent practicable. This Final Environmental Impact Statement (FEIS), which incorporates the previously issued Draft EIS (DEIS) by reference, has been prepared to evaluate potentially significant adverse impacts and reasonable alternatives. Moreover, measures to reduce/mitigate the significant adverse impacts that may potentially result from the construction and operation of the IHC are identified in the EIS. Steps of the SEQR process are summarized below.

### 1.2.1 Coordinated Review

Coordinated review is the process by which Involved Agencies cooperate in one integrated environmental review. Coordinated review has two major elements: establishing a Lead Agency (from among Involved Agencies) and identifying the interests and concerns of Involved Agencies so that they may be considered by the Lead Agency in the determination of significance and scoping the content of the DEIS.

### 1.2.2 Lead Agency Coordination

On February 2, 2018, based on its receipt of an application from MVHS requesting certain, discretionary financial assistance[13], and in its role as a potential Involved Agency, the Oneida County Local Development Corporation (OCLDC) classified the proposed action as a Type I action and initiated a 30-day Lead Agency coordination process[14] with other identified potential Involved Agencies to coordinate the designation of a Lead Agency. A copy of the OCLDC letter was included in Appendix C of the previously issued DEIS.

As a potential Involved Agency, the City of Utica Planning Board, by resolution dated February 22, 2018, declared its intent to act as SEQR Lead Agency for the proposed review of the Project. The intent of the City Planning Board was relayed to the OCLDC in a letter dated February 23, 2018 from the City of Utica's Department of Urban & Economic Development[15], which provides staff support to the Planning Board. Copies of the resolution and correspondence were included in Appendix C of the DEIS.

### 1.2.3 Notice of Determination of Significance/Notice of Intent to Prepare an EIS

A determination of significance is the critical step in the SEQR process in which the Lead Agency decides whether an environmental impact statement must be prepared for an action. The two key considerations in determining significance are "magnitude" (*i.e.*, severity) and "importance" (*i.e.*, in relation to its setting) of impacts. On May 7, 2018, the City of Utica Planning Board[16], as Lead Agency, issued a "Notice of Determination of Significance (Positive Declaration) indicating its intent to require the preparation of an Environmental Impact

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[12] SEQRA refers to the State Environmental Quality Review Act, while SEQR refers to the environmental review process stipulated in the statute and implementing regulations (6 NYCRR Part 617).
[13] MVHS's application included a completed Part 1 (Project and Setting) of a Full Environmental Assessment Form (EAF), which is included in DEIS Appendix C.
[14] 30-days ending on March 3, 2018.
[15] In a letter to Involved Agencies, dated March 8, 2018, the City Planning Board (via the City's Department of Urban & Economic Development) extended the Lead Agency coordination process from March 3, 2018 to March 23, 2018 (see DEIS Appendix C).
[16] Referred to interchangeably in this FEIS Responsiveness Summary as City of Utica Planning Board, Planning Board, or Lead Agency.

Statement to assess potential significant environmental impacts from the Project. Copies of the resolution and Positive Declaration are included in DEIS Appendix C.

### 1.2.4 Scoping

Scoping is a process that identifies potential environmental impacts of an action or actions which should be addressed in a DEIS. The purpose of scoping is to narrow issues to be addressed in the DEIS to facilitate the preparation of a concise, accurate and complete DEIS that is adequate for public review. The scoping process is intended to:

- Create consensus among Involved Agencies
- Provide additional opportunities for public participation by seeking input from the public regarding the content of the DEIS
- Minimize the inclusion and review of unnecessary issues.

On May 17, 2018, the City Planning Board issued a Draft Scoping Document, prepared by MVHS, initiating a 30-day review period to solicit written public and agency review comments. In addition, the Board held a public scoping meeting on June 7, 2018 to solicit oral comments. Based on a review of the comments (written and oral), the Board issued a Final Scoping Document on July 19, 2018. A copy of the Final Scoping Document is provided in DEIS Appendix C.

### 1.2.5 Draft Environmental Impact Statement

In addition to issues identified in the final scoping document, SEQR regulations require that the following elements be included in the DEIS:

- Cover sheet
- Table of contents
- Summary of the document
- A concise description of the proposed action, its purpose, public need and benefits, including social and economic considerations
- A concise description of the environmental setting of the areas to be affected, sufficient to understand the impacts of the proposed action and alternatives
- A statement and evaluation of the potential significant adverse environmental impacts at a level of detail that reflects the severity of the impacts and the reasonable likelihood of their occurrence including, as applicable:
  - Reasonably related short-term and long-term impacts, cumulative impacts and other associated environmental impacts
  - Those adverse environmental impacts that cannot be avoided or adequately mitigated
  - Any irreversible and irretrievable commitments of environmental resources that would be associated with the proposed action
  - Any growth-inducing aspects of the proposed action
  - Impacts of the proposed action on the use and conservation of energy
  - Impacts of the proposed action on solid waste management and its consistency with the state or locally adopted solid waste management plan
- A description of the mitigation measures

- A description and evaluation of the range of reasonable alternatives to the action that are feasible, considering the objectives and capabilities of the project sponsor including the "no action"[17] alternative.
- A description of the project's impact on "Environmental Justice"[18] issues
- A list of any underlying studies, reports, EISs and other information obtained and considered in preparing the DEIS.

The DEIS is supported by field and issue-specific studies and evaluations that describe the project's potential impact and methods to reduce/mitigate any potential significant adverse impact on the environment. Information from these supporting studies is relied upon in the document, with the complete reports provided as appendices:

- Hospital Site Selection Process Summary Memorandum (DEIS Appendix D)
- Phase 1A Cultural Resource Investigation (DEIS Appendix E)
- Phase 1A Architectural Inventory (DEIS Appendix E)
- Traffic Impact Study (DEIS Appendix F)
- Preliminary Geotechnical Review (DEIS Appendix G)
- Preliminary Environmental Due Diligence Review (DEIS Appendix H)

On November 15, 2018, the City of Utica's Planning Board, as SEQR Lead Agency, issued a Notice of Completion of the DEIS, indicating that the document was complete, conformed to the approved scoping document, addressed the issues required to be addressed in the scoping document, and adequate for public review and comment. The Planning Board also issued a Notice of Public Hearing, which identified a hearing date of December 6, 2018 to receive public and agency oral comments on the DEIS. The Planning Board indicated it would accept written comments through December 27, 2018. A copy of the Notice of Completion of the DEIS/Notice of Public Hearing is included as Appendix A to this FEIS Responsiveness Summary.

### 1.2.6 Final Environmental Impact Statement (FEIS)/Findings

This FEIS[19], which was prepared upon the close of the public comment period, consists of the following documents:

- The DEIS, by reference
- Any necessary corrections or revisions to the DEIS
- Copies of comments received, indicating their source (correspondence, hearing, *etc.*)
- The Lead Agency's responses to substantive comments[20] (Responsiveness Summary)

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[17] Discussion on the "no action" alternative includes an evaluation of the adverse or beneficial site changes that may occur in the absence of the proposed actions.

[18] Environmental Justice (EJ) is defined as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies (http://www.dec.ny.gov/public/333.html).

[19] This FEIS was prepared by OBG with contributions from Bond, Schoeneck & King, the Hammes Company, and other contributors, as referenced in the document.

[20] As identified in the NYSDEC's SEQR Handbook, the Lead Agency must respond to "substantive comments." General statements of objection or support should be noted in the comment summary, but need no response. The Lead Agency may choose to group comments by topic, and respond only once for each topic, so that responses in the FEIS are not repetitive. Comments do not need to be responded to individually or in order of their receipt.

The FEIS will be used by the Involved Agencies (including the City Planning Board, as Lead Agency) to make written findings regarding the environmental effects of the proposed actions. In their respective findings, Involved Agencies weigh and balance the relevant environmental impacts along with social, economic, and other essential considerations to determine whether the action will minimize or avoid environmental impacts to the maximum extent practicable. "Findings" will be based on information presented in the FEIS. Implementation of the action will not proceed until written findings are filed and all other applicable permits and approvals are obtained (see Section 1.3, below).

## 1.3 PERMITS AND APPROVALS

Construction and operation of the IHC will require the acquisition of discretionary and ministerial permits and approvals from various state and local jurisdictional agencies. A summary of potential permits and approvals is provided in Table 2.[21]

**Table 2. Potential Permits and Approvals**

| | Permit/Approval | Activity | Agency |
|---|---|---|---|
| | **State** | | |
| **1** | Funding Administration, Certificate of Need (CON), Construction Approval, and Operating Certificate | Joint Administration (with DASNY) of project funding approved by New York State Legislature<br>Review process, mandated under state law, which governs the establishment, ownership, construction, renovation and change in service of specific types of health care facilities including hospitals | NYSDOH |
| **2** | Operating Certificate | Obtain an operating certificate (license) issued by the NYS Office of Mental Health (NYSOMH) prior to the operation of such facilities and programs that are subject to the regulatory jurisdiction of the Commissioner of Mental Health | NYSOMH |
| **3** | Funding Administration | Joint administration (with NYSDOH) of project funding approved by New York State Legislature.<br>Potential conduit debt issuer in connection with any private not-for-profit tax-exempt MVHS bonds issued through DASNY | DASNY |
| **4** | Air Facility Permit[22] | Permit to construct and operate an air emission source | NYSDEC |

The Lead Agency decides which comments on a DEIS constitute substantive comments and must, therefore, be responded to in the FEIS. In determining whether comments received are substantive, the Lead Agency should assess the relevance of the comments to identified impacts, alternatives and mitigation, or whether the comments raise important, new environmental issues, not previously addressed. The Lead Agency may also choose to use its responses to comments as an opportunity to explain why an impact is not significant, why a topic is not included in the FEIS, or how an alternative or proposed mitigation would work. Clarification of scientific terms, concepts or data interpretation may also be necessary in a FEIS.

When a subject has been raised frequently, even if the issue is not relevant to the proposed action, it is good practice to address that topic at least briefly. Speculative comments, or assertions that are not supported by reasonable observations or data, need no response. Where comments identify minor discrepancies in wording, or typographical errors, the Lead Agency should make those corrections, but no other response is needed.

[21] In correspondence dated December 27, 2018 (see Appendix B to this FEIS Responsiveness Summary), the NYSDEC identified the following additional permits and/or registrations, depending upon final plans (including "final location of new transmission, water, sewer connections, if any"): Article 15/24 (Excavation Fill, Stream Disturbance, Freshwater Wetlands, Water Quality), Chemical Bulk Storage, and Water Withdrawal. Based on current plans, it is anticipated that these permits/registrations will not be necessary.

[22] Proposed emissions may be considered "trivial or exempt activities" (see DEIS Section 3.4); a permit or registration may not be required.

| | Permit/Approval | Activity | Agency |
|---|---|---|---|
| **5** | SPDES General Permit for Storm Water Discharges from Construction Activity (GP-0-15-002) | Storm water discharges from construction phase activities disturbing one-acre or greater | NYSDEC |
| **6** | Petroleum Bulk Storage Registrations | Petroleum bulk storage tanks for boilers and emergency generators | NYSDEC |
| **7** | Water and Wastewater System Improvements Approval of Plans | Approval of water and wastewater infrastructure improvements and connections. | NYSDEC<br>**See No. 19** |
| **8** | Highway Work Permit | Work within NYS highway rights-of-way (ROW). | NYSDOT |
| **9** | Consultation (16PR06600) | Compliance with State & National Historic Preservation Acts | SHPO |
| | **Local** | | |
| **10** | Project Funding | Financial benefits & incentive support | Oneida County Local Development Corporation (LDC) |
| **11** | Potential Property Condemnation/Eminent Domain | Potential condemnation and acquisition of private property within Project footprint | Oneida County<br>Oneida County IDA<br>City of Utica URA |
| **12** | Site Plan Review | Review and approval of site plan[23] | Utica Planning Board |
| **13** | Multiple | Approval of public property transfers/road closures; funding of parking garage; review and approval of structures located within City rights-of-way (*e.g.*, pedestrian bridges, walkways, canopies, *etc.*) | Utica Common Council |
| **14** | Highway Work Permit | Work within highway rights-of-way (road and utility improvements, curb cuts) | Utica Department of Engineering |
| **15** | Rail Crossing | Extension of natural gas line (by National Grid) under CSX railroad | CSX |
| **16** | Consolidation & Re-Subdivision | Potential consolidation of parcels within area of potential effect | Utica Department of Engineering or City Planning Board |
| **17** | Special Use Permit/Variances | Medical use in Central Business District (CBD); area variances depending upon location of specific Project elements | Utica Zoning Board of Appeals |
| **18** | General Municipal Law (GML) § 239-m | County Planning review of activities located within 500-feet of State or County highway, municipal boundary or park. | Oneida County Department of Planning<br>Herkimer-Oneida County Comprehensive Planning Program |
| **19** | Water and Wastewater System Improvements Approval of Plans | Approval of water and wastewater infrastructure improvements and connections. | **See No. 7**<br>Mohawk Valley Water Authority (MVWA)<br>Oneida County Health Department<br>City of Utica<br>Oneida County Department of Water Quality & Water Pollution Control |
| **20** | Building & Demolition Permits | Building code compliance. | Utica Codes Department |

[23] Installation of a utility/pedestrian bridge over a City street (Columbia Street) will require review and approval by the City Engineer.

| | Permit/Approval | Activity | Agency |
|---|---|---|---|
| **21** | Certificate of Occupancy | Approval to occupy building. | Utica Codes Department |
| **22** | Various | Specific hospital operations will require multiple registrations, licensing, notifications, and/or certifications to support specific operations and equipment (*e.g.*, radiology, lasers, *etc.*). Such activities are considered nondiscretionary (ministerial) approvals. | Various |

## 2. CORRECTIONS AND REVISIONS TO DEIS

The following information has been updated since the release of the DEIS:

- Utility demands for the hospital have been updated, but are still within the order of magnitude estimates provided in the DEIS. Peak water demand, which is based on the maximum flow anticipated to be required by the hospital during the busiest times, has increased from 500 gpm to 652 gpm. Maximum flow values do not occur consistently over the full 24-hours in a single day, and consist of both domestic uses and cooling tower uses. Peak (maximum) water demand is anticipated to be approximately 484 gpm for domestic uses and 168 gpm for cooling tower uses, totaling 652 gpm. Daily water usage is anticipated to be in the range of 243,360 gallons for domestic uses, and seasonally an additional 146,880 gallons per day are anticipated to be used for cooling tower use.
- Parking facilities will consist of a three-story, municipally-owned parking garage and multiple parking lots. The parking garage will provide approximately 1,550± parking spaces and the parking lots will allow for an additional 780± parking spaces. Proposed surface parking space needs have been reduced from 1,100± spaces (DEIS) to 780± spaces. The reduction includes the elimination of a proposed surface parking lot originally proposed at the site of the existing Police Maintenance Facility (see Figure 3 of this FEIS Responsiveness Summary). These parking facilities will be available for use by patients, visitors, staff, and volunteers, with the garage spaces being available for hospital-related parking, as well as to the community for non-hospital related events.
- The need for CSX approval of National Grid's extension of its natural gas line under the existing CSX rail line was added to Table 2 (Potential Permits and Approvals).
- The DEIS indicated that a new building would be constructed for the CUP. MVHS's current plan is to acquire and repurpose space within that portion of the existing Kennedy Garage currently occupied by Mohawk Medical Equipment (MME). The former MME space will be remodeled to be used as the hospital's CUP and other hospital related uses. The façade of the space will be improved, and a utility and pedestrian bridge will be constructed over Columbia Street from the hospital 2nd floor to the CUP 2nd floor. Uses planned for the former MME space are similar to the uses that were planned for the CUP that was to be constructed in the downtown hospital building, and impacts are anticipated to be similar. Improvements related to the adaptive reuse of the former MME space will be completed within the overall timeline and Project budget.
- An addendum to the TIS is provided as Appendix D to this FEIS Responsiveness Summary. The Addendum addresses the NYSDOT's comment regarding traffic operations and potential mitigation measures. As requested by the NYSDOT, a separate analysis was conducted to take a conservative look at recommended mitigation measures on NYS Route 5S, specifically. The Addendum notes all recommended mitigation measures for the entire study area. Proposed mitigation and locations are illustrated on Figure 31 and summarized below:
  - Ensure adequate pedestrian facilities are available in the vicinity of the Project Site including locations that are expected to have increased pedestrian activity as a result of the proposed Project as shown on the mitigation plan (Figure 31)
  - Upgrade or replace traffic signals to add detection, actuation, coordination, and pedestrian accommodations at the following locations:
    - 2-State Street & NYS Routes 5/8/12 off/on-ramp
    - 3-State Street & Lafayette Street
    - 4-State Street & Columbia Street
    - 6-Cornelia Street & NYS Route 5S/Oriskany Street
    - 8-Cornelia Street & Columbia Street

  - 10-NYS Route 5S/Oriskany Street & Broadway
  - 11-Broadway & Lafayette Street
  - 12-Broadway & Columbia Street
  - 20/21-NYS Route 5S/Oriskany Street & Genesee Street
- Optimize signal timings at the following intersections (upgrade/update equipment as needed):
  - The coordinated system which includes intersections 2 – State Street & On/Off-Ramps, 3 – State Street & Lafayette Street/Emergency Department Access (PM), and 4 – State Street & Columbia Street
  - The coordinated system which includes the intersections of 6 - NYS Route 5S (Oriskany Street) & Cornelia Street, 10 – NYS Route 5S (Oriskany Street) & Broadway, and 20/21 – NYS Route 5S (Oriskany Street) & Genesee Street
- Construct a dedicated right turn lane on the eastbound approach to intersection 2 – State Street & On/Off-Ramps
- Provide a center two-way left-turn lane on State Street from intersection 2 – State Street & On/Off-Ramps to just south of intersection 4 – State Street & Columbia Street
- Construct a dedicated left turn lane on the northbound approach to intersection 6 – NYS Route 5S (Oriskany Street) & Cornelia Street

## 3. RESPONSIVENESS SUMMARY

The following section sets forth substantive comments received on the DEIS and responses to those comments. A complete record of the written and oral comments is provided in Appendix B of this FEIS Responsiveness Summary.

### 3.1 PROJECT DESCRIPTION

**Comment 1: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

The Applicant currently operates two hospitals (St. Elizabeth's and St. Luke's) and a number of other facilities in the Utica area. The largest facility is St. Luke's Hospital in New Hartford with 370 inpatient beds (inclusive of 24 physical medicine and rehabilitation beds co-located in a separate building on the St. Luke's Campus with a 202 bed nursing home). Applicant proposes to use the grant provided under PBH 2825-b to consolidate and reduce beds from its 201-bed St. Elizabeth's Campus (SEMC) with those from St. Luke's into a new facility that would have 373 beds (excluding the 24 physical medicine and rehabilitation beds, which would remain in their current location at St. Luke's) (see Draft EIS p173/3527). In spite of the consolidation of hospital beds from two facilities, the Applicant proposes to maintain some functions at both the St. Elizabeth's and St. Luke's Campuses.

The St. Luke's Campus qualifies for funding under PBH 2825-b because, being on Utica's western boundary, it is located in Oneida County's "largest population center," the wording of the law deliberately not restricting funds to the City of Utica. As noted under B., above, Applicant acknowledged that the Project is feasible and would be built on the St. Luke's Campus if it could not be done Downtown. If the new facility were to be constructed at the St. Luke's Campus instead of Downtown, it would represent an increase of only 27 hospital beds (about 7%) on that site. In this regard it is also noted that the St. Luke's Home on-site has already reduced its long term care beds by 40 (Draft EIS p653/3527). While long term care beds may not be the same as hospital beds, it suggests that even with the addition of beds transferred from SEMC, the overall use of the St. Luke's Campus with a combined hospital facility would be less intense than it had been in the past.

The Project is supposed to be judged upon the extent to which it "will contribute to the integration of health care services and long term sustainability of the applicant…" (PBH 2825-b (4)(a)). Focusing on (4)(a)'s "sustainability" clause, creating an additional campus Downtown for the Applicant to build and maintain intuitively seems to contradict this goal. Intuition, however, appears substantiated by Applicant's own numbers which reveal that, in spite of a projected reduction of 184 employees, there will be an almost 33% INCREASE in the number of employees PER BED from about 4.75 before consolidation to at least 6.3 after consolidation. (See the number of beds cited above and Applicant's pre and post consolidation employee estimates at Draft EIS pp589-90/3527).

Focusing on the "integration of health care services" clause of PBH2825-b(4)(a), placing an additional 2 miles between a new hospital Downtown and Applicant's 24 bed rehabilitation and 202 bed skilled nursing facilities remaining at St. Luke's seems contrary to both the "integration" required by (4)(a) and PBH 2825-b's general purpose to "consolidate multiple licensed health care facilities…"

The Project is also to be judged on "the extent that the proposed capital project furthers the development of primary care and other outpatient services…" PBH 2825-b (4)(d). The presence of St. Luke's Hospital has spawned a de facto medical district of providers in the Utica Business Park and along Burrstone and French Roads (*e.g.*, Slocum-Dixon Medical Group, Omni Surgical Center, Mohawk Valley Endoscopy Center). Removal of the anchor institution, St. Luke's Hospital, to Downtown Utica will result in less convenience for the medical providers and their patients, reduce opportunities for collaboration, and appears contrary to the intent of PBH 2825-b (4)(d).

Since it acknowledges the feasibility of putting the Project on the St. Luke's Campus and its plan to retain at least some services both there and at SEMC, the Applicant needs to explain why the purpose and provisions of PBH

2825-b were not seen as a “fatal flaw” to the Downtown Site (and to any site other than St. Luke’s Campus), otherwise its “fatal flaw” analysis appears to be arbitrary.

**Response 1:**

Public Health Law (PHL) Section 2825-b established the Oneida county Health Care Facility Transformation Program (OCHCFTP) to be jointly administered by the NYSDOH and the Dormitory Authority of the State of New York (DASNY). The law made $300,000,000 available for capital grants to general hospitals for projects located in the largest population center in Oneida County that consolidated multiple licensed health care facilities into an integrated system of care. According to the most recent Census data, the City of Utica is the largest population center in Oneida County and, therefore, the funds were restricted to sites within the City.

Applications for the grant funds were due to NYSDOH in January 2017. NYSDOH reviewed the grant applications based on the following statutory criteria:

a) The extent to which the proposed capital project will contribute to the integration of health care services and long-term sustainability of the applicant or preservation of essential health services in the community or communities served by the applicant (PHL 285-b(4)(a));

b) The extent to which the proposed project or purpose is aligned with Delivery System Reform Incentive Payment (DSRIP) program goals and objectives (PHL 2825-b(4)(b));

c) The relationship between the proposed capital project and identified community need (PHL 2825-b(4)(c));

d) The extent that the proposed capital project furthers the development of primary care and other outpatient services (PHL 2825-b(4)(d));

e) The extent to which the proposed capital project benefits Medicaid enrollees and uninsured individuals (PHL 2825-b(4)(e));

f) The extent to which the applicant has engaged the community affected by the proposed capital project and the manner in which community engagement has shaped such capital project (PHL 2825-b(4)(f)); and

g) The extent to which the proposed capital project addresses potential risk to patient safety and welfare (PHL 2825-b(4)(g)).

MVHS applied for grant funds available under 2825-b. In its application for funding, MVHS was required to identify the site on which it would use those funds. The grant application identified the Project location as the area in downtown Utica bounded by Oriskany and Columbia Streets and Broadway and State Streets.

MVHS’s application also explained how the Project would “contribute to the integration of health care services and the long-term sustainability of the Eligible Applicant or preservation of essential health services in the community or communities served by the Eligible Applicant.” Specifically, the MVHS IHC will consolidate two existing acute care hospitals into one integrated location, which will provide greater access to the City of Utica, Oneida County and the Region, and improve operational efficiency, patient satisfaction and safety for both patients and caregivers. One site will centralize limited physician resources. For example, of the current 550 physicians at MVHS only 220 practice at both FSLH and SEMC. As such, the consolidation of services into one campus will reduce the need for patients to make several trips to various locations or be transferred between facilities for specialized care. The integration will also create more collaborative care versus the individual silos of care currently caused by two separate facilities. The MVHS ambulatory network plan of primary care clinics and sites will provide the high level of care which will be integrated in the acute care environment while providing convenient access to patients for their primary needs.

The placement of ambulatory care services adjacent to the inpatient care areas will provide for timely and efficient care and will maximize the care givers operational processes while providing a work environment centered around the patient. The key indicators that will be measured and focused around the patient experience are: reduction of patient transfers; reduction in length of stay due to improved discharge planning; better communication and integration between patient, family and care team; minimization of noise; improved patient satisfaction; increased direct patient care time with clinical staff; improved patient safety and reduction of hospital-acquired infection rates; reduction in patient falls; a reduction in unnecessary ED visits and inpatient utilization; and a reduction in medical errors.

MVHS will gain numerous operational efficiencies by combining current duplicated departments. Consolidation of the two existing acute care sites will improve efficiency of staff workflow, result in a decrease of inpatient beds from a combined existing total of 571 at the two combined campuses to a more efficient model with 373 beds, a reduction of 30%. This is achievable through a 95% private patient room model, improved through-put metrics, reduced length of stay and a general reduction of utilization in the region which reflects the national trend away from inpatient admissions with a rise in outpatient care.

The new facility will provide structural longevity that the current facilities cannot offer, and it will become a community center for healthcare that will continue long into the future. From a facilities perspective, the consolidation of two aging facilities (100 and 60 years) will provide a more energy-efficient environment which meets and exceeds current day best practices and building codes. Patients will have greater control of room temperature, lighting (both natural and artificial), sound, access to nutrition and private toilet facilities due to the use of 100% private rooms. A reduction of greenhouse gases, water conservation and other sustainable measures will be incorporated to improve the patient experience, as well as heal the environment.

Additionally, 39 localities in Oneida County are designated as Health Care Provider Shortage Areas for primary care. The IHC Project can enhance primary care access and capacity as the new hospital will be desirable feature to primary care providers being recruited to serve the Oneida County community. The Project also furthers the development of primary care and other outpatient services. As noted in the grant application, the key component of successful delivery system reform is the development and strengthening of primary care and community-based outpatient services. MVHS currently employs 69 primary care providers among 19 practices located in Oneida and Herkimer Counties. The integration and efficiency opportunities presented by the new hospital Project support MVHS's further development of primary care by improving access/capacity, care planning and management, reducing gaps in care, and promoting more collaboration and integration across the continuum of care. This will be accomplished and measured by MVHS practices achieving and sustaining Patient Centered Medical Home (PCMH) recognition through the National Committee for Quality Assurance (NCQA). Through the PCMH model, MVHS primary care practices will use teamwork, process design, and information technology to ensure that evidenced-based care is provided at the right time and in the right setting. The PCMH model ensures the delivery of appropriate preventive, routine services as well as evidence-based care to medically complex and at-risk patients. Further, the model promotes care integration and collaboration with community-based organizations, treating the whole person in a more comprehensive manner. This includes collaboration with social service agencies, behavioral health organizations, Health Homes, and other downstream care management providers. Through DSRIP, MVHS has begun collaboration with Health Homes and plans to deploy an integrated care model for behavioral health, palliative care and cardiovascular disease in its primary care offices. Development of primary care in these ways improves patient outcomes and reduces avoidable hospital admissions and readmissions, aligning with the goals of the new hospital Project.

Accordingly, since NYSDOH awarded the grant to MVHS based on the information set forth in its application including the proposed Downtown Site, the parameters of Public Health Law Section 2825-B were satisfied.

For a response concerning the viability of St. Luke's as an acceptable alternative, see Responses 26, 28 and 35.

**Comment 2: Michael Galime, City of Utica Council President, Letter, 12/27/18:**

[…] the planning board should ensure that this project is treated as a private development project, that has received a government grant for partial funding, and that the project be reviewed in its entirety.

**Response 2:**

In accordance with SEQRA, the Project is being reviewed in its entirety. Dependent and related activities, which comprise the Project, were identified in the DEIS and are reiterated in Section 1 of this Responsiveness Summary, and include: the hospital building; the Central Utility Plant (CUP); parking facilities (including one municipal parking garage and multiple surface lots); future medical office building (MOB) (by private developer); campus grounds; hospital helipad; and pedestrian/utility bridge over Columbia Street. To accommodate the proposed MVHS IHC, the proposed Project will involve the acquisition of properties and modifications to existing public/private utility infrastructure.

**Comment 3: Michael Galime, City of Utica Council President, Letter, 12/27/18:**

Site Preparation. The project filings require a parking garage, as well as previously listed additions to assemble the site. The proposed garage is seemingly separated from this SEQRA process, and it appears is not being studied, as required. Under SEQRA 617.2 this may be Segmentation. If this is deemed Segmentation, but the State CON from the department of health requires the Parking Garage, this review must include all involved actions. Either the Parking Garage proposal must perform SEQRA, or it must be included in this review.

**Response 3:**

The DEIS is clear that it includes the entire IHC, including a three-story, municipally-owned parking garage that would provide approximately 1,550± parking spaces. Accordingly, there is no segmentation and no need to undertake a separate SEQRA review for the parking garage.

**Comment 4: Michael Galime, City of Utica Council President, Letter, 12/27/18:**

The City of Utica has no formal plan to relocate the police maintenance facility. The cost for this relocation is not specified in the project filings.

**Response 4:**

The Benny D. Rotundo Public Safety Building, which houses the City of Utica Police Department, was constructed in 1928. The City has been aware for several years that, given the age of the building, it is getting past its usefulness as far as being able to serve police operations effectively.
https://www.uticaod.com/news/20171210/inside-utica-police-departments-aging-station

Basement walls are cracked, the roof leaks, and the size of the building leaves little room for the storage of records and evidence. The City has had conversations about a shared public safety facility: one that would house police operations with the upper-level administrative staff for the Utica Fire Department. As a result, the City is now undertaking a feasibility study for the relocation of the police station and maintenance garage – a step that needs to be taken regardless of the proposed IHC Project. To provide the City with sufficient time to explore alternatives and seek funding from other governmental sources, MVHS has agreed that the police maintenance facility can remain in its current location until 2024. Accordingly, since relocation of the police station and maintenance garage is a separate and independent project, there is no requirement to consider the cost for relocation in the DEIS.

**Comment 5: Michael Galime, City of Utica Council President, Letter, 12/27/18:**

This proposal, if acted upon, will displace the main police headquarters, which there is no financial plan to relocate.

**Response 5:**

See Response 4.

**Comment 6: Michael Galime, City of Utica Council President, Letter, 12/27/18:**

The heliport specified in the filings is not a helipad. Can a helicopter land within this proximity to buildings, on a ground level, safely? How will people be transported into the facility, considering its placement adjacent to the proposed facility.

**Response 6:**

The Project Sponsor, MVHS, originally identified this Project element as a "helistop." During the public SEQR scoping process, the FAA provided the following comment: "[ ]…the FAA has published guidance on how heliports, specifically hospital heliports, should be planned and designed. FAA Advisory Circular (AC) 150-5390/2C[24] [provided by the FAA] outlines the parameters that need to be considered when siting the facility and what infrastructure is needed. The AC does not use the term "helistop," as the design standards and recommendations of this AC apply to all heliports. Therefore, it is recommended that the reference to helistop be changed to Hospital Heliport for consistency with published guidance and standards." (FAA to Brian Thomas, City of Utica, June 11, 2018)

However, the term "heliport" is also inconsistent with proposed operations and it was determined that the term "helipad" more appropriately reflects proposed helicopter-related operations. As stated in Section 1.1.4 of this FEIS Responsiveness Summary, in contrast to a heliport, a helipad is a location designated for helicopters to land and take off without facilities for refueling or repair. A hospital helipad is limited to serving helicopters engaged in air ambulance, or other hospital related functions. As the proposed IHC operations will not include refueling or repair, the term "helipad" is used for the Project.

Designed to FAA specifications, the helipad will be situated to the west of the hospital building, adjacent to the ED ambulance entrance and north of Columbia Street. MVHS anticipates approximately 40± flight operations per year. A surface helipad is ideal to handle this low volume and provides the shortest gurney access path to and from the ER. See Responses 10, 11 and 12.

**Comment 7: Michael Galime, City of Utica Council President, Letter, 12/27/18:**

The current proposal calls for a reduced size single location consolidation of our medical delivery system. This is being placed in the center of the City of Utica, landlocking the facility for all future development, while surrounded by privately owned property. This will limit future expansion and should be considered an adverse effect.

**Response 7:**

Any site is, by definition, "landlocked" in that it is constrained by its existing property lines. Moreover, the Project is designed to meet the long-term healthcare needs of the community. The IHC will provide long term sustainability to MVHS and healthcare in the community. Not only will a new facility provide structural longevity that the current facilities cannot offer, but it will become a community center for healthcare that will continue long into the future. It will provide the opportunity for growth as the needs of the community change and will promote development of the surrounding area. The ability to attract new and younger providers will help to ensure that the healthcare needs of the community will continue to be met and grow as needs change into the future. Accordingly, any need for future expansion is purely speculative and beyond the scope of MVHS's application and this EIS.

**Comment 8: Michael Galime, City of Utica Council President, Letter, 12/27/18:**

The proposed purpose of the facility filed with the OCLDC [Oneida County Local Development Corporation] and scoped within the SEQRA filings is to improve the overall delivery of health care needs in the greater Utica area.

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[24] https://www.faa.gov/documentLibrary/media/Advisory_Circular/150_5390_2c.pdf

This proposal is consolidating current facilities into one, keeping operational care the same in most areas, and reducing it in others (pediatrics), for example.

Regardless of the chosen location, there is potential negative impact that the proposed facility will not achieve proposed and pitched improvements and not increase our healthcare delivery overall, while at the same time reducing the size of the overall capabilities within the area.

**Response 8**:

The Project will increase healthcare delivery and will increase capabilities – not decrease them. For example, the IHC creates a structured delivery system, ends service fragmentation, increases service integration and coordinates the work of the hospitals, primary care, and community-based organizations. The key component of successful delivery system reform is the development and strengthening of primary care and community-based outpatient services to support the community's needs. The IHC will expand access to primary care, as well as other specialties, through recruitment. Working for a large, state-of-the-art healthcare system holds a great appeal for physicians and mid-level providers. They will have access to the best facilities and equipment, with a layout designed to accommodate, not only the patient's needs, but that of the providers as well. Physician recruitment is vital to the healthcare system so that the community is not only guaranteed continued general healthcare coverage, but also access to specialties that would not otherwise be available in this area. The IHC will also improve healthcare by reducing gaps/inefficiencies in care coordination, aligning with payment reform, and rebalancing health delivery through reductions in hospital beds as care is shifted to outpatient models and population health management. See Responses 1 and 230.

**Comment 9: Steve Grant, The Landmarks Society of Greater Utica (LSGU), Letter, 12/27/18**:

Provide additional clarification from MVHS as to what functions are remaining at the various campuses and how this would promote a consolidation/integration of the health care system.

**Response 9**:

MVHS summarized consolidation activities in their CON application, which was previously submitted to and accepted by the NYSDOH. The CON application was appended to the DEIS (see DEIS Appendix A) and information relative to the consolidation was summarized in DEIS Section 1.1.

*SEMC*
The SEMC site will be converted into an outpatient extension clinic to be known as "St. Elizabeth Campus". MVHS prefers that this site maintain its current Permanent Facility Identifier (PFI) Number. Pursuant to the CON application, the following programs and services will remain on the St. Elizabeth site, with no construction or relocation necessary:

- Sleep center services (Mohawk Valley Sleep Disorders Center)
- The College of Nursing
- The cardiac and thoracic surgery-related services (all of which are medical-only services; no emergency/surgical services will be provided at this site)
- Primary care and laboratory patient service center (PSC) services.

These programs and services are not currently in the hospital building. Specifically, programs currently located in the College of Nursing Building (*e.g.*, Sleep Lab, administrative services), and the physician offices in the Marian Medical Building will remain on the SEMC campus.

*FSLH*
The St. Luke's site, which will be a hospital "division," and known as the St. Luke's Campus, will retain the following services, with no construction needed:

- 24 certified, inpatient Physical Medicine and Rehabilitation (PM&R beds)
- Laboratory PSC service
- Outpatient primary care and obstetrics services
- Outpatient surgeon offices for medical visits/services.

These programs and services are not currently in the hospital building, but in the remaining non-hospital buildings on the campus. For example, the physician offices are in the professional office building and the Acute Inpatient Rehab unit currently resides in the nursing home building.

The IHC Project promotes consolidation and integration as the majority of the inpatient and outpatient services will relocate to the new hospital campus. The Project will also centralize healthcare services for Oneida County in the most populated area of the County, which is a requirement of the $300 million grant provided by the NYSDOH under New York Public Health Law Section 2825-b.

The new hospital campus and merger will:

- Enable MVHS to consolidate two existing acute care hospitals into one integrated location
- Provide greater access to residents of the City of Utica, Oneida County and the region
- Improve operational efficiency, patient satisfaction and safety for both patients and caregivers.

In particular, the overall Project will create a structured delivery system, end the current service fragmentation, increase service integration and coordinate the work of the hospitals and other community-based organizations. Furthermore, the implementation of the overall Project will reduce gaps/inefficiencies in care coordination, aligns with payment reform and rebalances healthcare delivery through the reduction in the number of hospital beds as care is shifted from an inpatient care model to an outpatient care model focused on population health.

In addition to improving the efficiency of staff workflow, the proposed consolidation of the two existing acute care facilities will result in a decrease in the total number of inpatient beds from a combined 571 inpatient beds at two campuses to a more efficient model with 174 fewer beds, representing a reduction of about 30%. This is achievable through having 95% private patient rooms, improved throughput metrics, reduced length of stay and a general reduction of utilization in the region, which reflects the national, State and local trends of a reduction in inpatient admissions and an increase in outpatient visits.

See also Responses 1 and 8.

**Comment 10: Joseph P. Caruso, City of Utica Planning Board, Email, 12/27/18:**

**Helipad:** I am concerned that the emergency air transport plan is for construction of a street-level helipad rather than a rooftop heliport. While I am aware for the stated reasons for this (cost among them), I'm concerned for the interaction with pedestrian traffic, and the noise/distractions caused by aircraft landing and taking off, and would prefer to see a rooftop (heliport) solution. If the hospital building roof is not a practicable solution, then what about a) locating a heliport on the parking garage or b) locating a helipad slightly off-site, in a more pedestrian-remote space, as I have read has been done in other cities?

**Response 10:**

According to MVHS's avionics' expert (Vertical Aeronautics International), either scenario is in compliance with the FAA's AC (see Response 6), as long as all criteria are satisfied. A surface helipad can present issues with vehicle and pedestrian traffic; however, these can be mitigated with the inclusion of signage and traffic guards at key spots. Elevated helipads [rooftop] also present issues with structural enhancement, gurney elevators and ingestion into air handlers. Both elevated and surface hospital helipads exist and function well. In this case, it is anticipated that approximately 40± operations will occur each year. A surface helipad is ideal to handle this low volume of flight operations and provides the shortest access path to and from the ER. Locating the helipad atop the parking garage, will cause the helicopter's downwash to possibly damage parked vehicles and require the inclusion of a gurney elevator or bridge to the patient tower. As a trauma facility, a remote helipad location may negate that classification and will most likely require an ambulance to transport the patient. This is a major delay and can compromise the well-being of the patient by changing modes of transportation.

**Comment 11: George Mitchell, City of Utica Planning Board, Email, 12/27/18:**

**The Helicopter Pad:** While this pad is designed in accordance with applicable standards, the proposed design will have a continued impact to the surrounding area each time a medical helicopter transport approach's the ground level pad, by stirring up significant dust, diesel fumes from exhaust, and emit noise levels well beyond the ambient noise in the immediate area. Additionally, one can imagine the site of a landing helicopter close to the surrounding roads, including the main North/South Arterial will become a distraction to the vehicle traffic. It should also be considered that as events at and around the Auditorium continue to expand, helicopter landings at ground level will become a negative impact to those "quality of life" events. I believe these significant impacts can be largely mitigated if the landing pad were to be relocated at the roof-top of the main hospital building. In fact, this solution would also reduce the overall footprint of the project, thereby further the overall project impact. While I can imagine that my proposed solution will increase the cost of the project by requiring a elevator shaft from the roof to the various building floors, It's also true that many urban hospitals incorporate this very same solution for the very same reasons I describe here. Additionally, this solution will allow the current space allocated for a ground pad to be used for future expansion to the campus as needs change. I do not believe that cost should be the only consideration for this alternate approach, when there are significant trade-offs to the environmental quality of the project as I've pointed-out here. This project must work for MVHS, the citizens of tour city and county and also for all of the other tenets of our Downtown area. I would very much like to see this impact mitigated in the final EIS and before approval of the EIS.

**Response 11:**

According to MVHS, the design helicopter is a Blackhawk, which is a large aircraft and has a significant downwash. As such, the placement of the heliport at the surface or at rooftop will both cause debris, dust and flying snow. This can be mitigated by watering or sweeping the area prior to landing at the surface helipad. An elevated helipad always has dust and dirt within its crevices. These impurities will also find their way down to ground level during the helicopter's approach, largely based upon so few helicopter operations.

Traffic on the adjacent highway and Oriskany Street contribute to the existing ambient sound level, which will attenuate episodic helicopter sounds. In addition, the nearby Utica Auditorium (AUD) is already adjacent to high sound levels from abutting highways and would be able to accommodate any minor, temporary helicopter noises.

**Comment 12: Joseph Cerini, Citation Services, Email, 12/27/18:**

Another concern is the emergency helipad. While stating that the helipad will be designed to FAA specifications, helicopter flight landings pads are designed with glide paths, landing into the wind, and have a minimum of 2000 feet and standard 4000 ft. path. In FAA literature, if there is a hazard that penetrates that zone it will be removed or properly marked. Into the wind in Utica is usually west to east, coming in over Genesee St. So either more building need to be taken down or flashing beacons for downtown Utica. Nowhere in the DEIS is there mention of form FAA 7460-1 filed.

**Response 12:**

The siting of emergency helipads, and their intermittent use, are a common feature at hospitals. The helipad will function safely and be compliant with all FAA and City requirements. When submitting the Form 7460-1 and helipad plans to the FAA, all required and desired amenities will be included. Obstruction lights, the quantity of wind cone assemblies, *etc*. are yet to be determined, but will be encompassed in the submitted plans. The 4,000-

foot protected area will be clearly shown and any penetrations thereof will be addressed to and by the FAA and comply with the AC (see Response 6).

**Comment 13: Stephen N. Keblish, Jr., Resident (Utica), Email, 12/27/18:**

MVHS – Mohawk Valley Health System is listed as the sponsor of this action, however MVHS is not responsible for the whole action of this project and therefore the impacts, alternatives, and mitigations detailed in the DEIS are inadequate to understanding the full scope of the project. The DEIS is too limited in fulfilling its statutory purpose by limiting the sponsor to just MVHS.

**Response 13:**

MVHS is the Project Sponsor of the entire IHC Project. Certain local agencies are assisting MVHS with the Project, and that assistance renders those agencies "involved" agencies pursuant to SEQRA. Each of those agencies is identified as an Involved Agency in the DEIS (see Table 2) and will be required to issue a separate Findings Statement prior to making any final determination regarding the Project. Findings provide the teeth in the SEQR process because they articulate the basis for substantive aspects of each agency's decision, including supporting any conditions/mitigation measures to be imposed by the agency.

**Comment 14: Stephen N. Keblish, Jr., Resident (Utica), Email, 12/27/18:**

City of Utica – The City of Utica has entered into a Memorandum of Agreement (MOA) with the County of Oneida and MVHS to build the municipal parking garage, which is a component of this action. By omitting the City of Utica's responsibilities as a sponsor, the DEIS is too narrow to assess, describe, discuss or evaluate impacts, alternatives, and mitigations related to the actions the City of Utica will be taking in this project.

**Response 14:**

The City of Utica is not the Project Sponsor. It is an Involved Agency and it is properly identified as an Involved Agency in the DEIS (see Table 2). The potential impacts and associated mitigation in connection with construction and operation of the parking garage are properly and adequately identified and addressed in the DEIS. As an Involved Agency, the City of Utica will be required to adopt its own Findings Statement and/or conditions prior to issuing any final approvals in connection with the Project.

**Comment 15: Stephen N. Keblish, Jr., Resident (Utica), Email, 12/27/18:**

Oneida County has entered into an MOA with the City of Utica and MVHS to build the municipal parking garage. As primary finance, design, contracting and condemning entity, Oneida County is a primary sponsor within the scope of this action (**https://www.uticaod.com/news/20181010/oneida-county-approves-design-firm-for-hospital-parking-garage**). By omitting Oneida County s responsibilities as a sponsor, the DEIS is too narrow to assess, describe, discuss or evaluate impacts, alternatives, and mitigations related to the actions Oneida County will be taking in this project, especially in evaluating the objectives, alternatives, impacts, and mitigations of the proposed parking garage.

**Response 15:**

Oneida County is not the Project Sponsor. It is an Involved Agency and it is properly identified as an Involved Agency in the DEIS (see Table 2). The potential impacts and associated mitigation in connection with construction and operation of the parking garage are properly and adequately identified and addressed in the DEIS. As an Involved Agency, Oneida County will be required to adopt its own Findings Statement and/or conditions prior to issuing any final approvals in connection with the Project.

**Comment 16: Stephen N. Keblish, Jr., Resident (Utica), Email, 12/27/18:**

New York State (NYS) is the primary funding and programing agent for this project via the Oneida County Health Care Facility Transformation Program, which provided $300 million in capital funding to consolidate multiple licensed health care facilities into an integrated system of care. The EIS must include a description and evaluation of the range of reasonable alternatives to the action that are feasible, considering the objectives and capabilities of the project sponsor (https://www.dec.ny.gov/permits/6424.html). The objectives and capabilities of NYS are more integral to this project than any other participant driving this project.

**Response 16:**

The State of New York is not the project sponsor. It's agencies, DASNY and NYSDOH are responsible for administering the grant funds. DASNY and NYSDOH are Involved Agencies and are properly identified as Involved Agencies in the DEIS (see Table 2). The potential impacts and associated mitigation in connection with the entire IHC Project are properly and adequately identified and addressed in the DEIS. As Involved Agencies, DASNY and NYSDOH will be required to adopt their own Findings Statement and/or conditions prior to issuing any final approvals in connection with the Project.

**Comment 17: Stephen N. Keblish, Jr., Resident (Utica), Email, 12/27/18:**

The Kennedy Garage – The project will include refurbishments to the Kennedy Garage, however the planned actions, timeline, and resulting impacts are not evaluated by the DEIS. "The estimated cost for the project is five hundred twenty three million five hundred seventeen thousand eight hundred seventy five and no/100ths dollars ($523,517,875), which includes the refurbishment of Kennedy Garage and the development of the proposed parking facility discussed herein, with funding above and in addition to the state grant to be from additional public and private funding to be secured by MVHS with the assistance of City, County, and Mohawk Valley EDGE." – MOA Recitals.

**Response 17:**

The current plan for Kennedy Garage is limited to MVHS's acquisition of the existing retail space within that portion of the Kennedy Garage Building currently owned and occupied by Mohawk Medical Equipment (MME). The former MME space will be remodeled to be used as the hospital's CUP, and other hospital related uses. The façade of the space will be improved, and a utility and pedestrian bridge will be constructed over Columbia Street from the hospital 2$^{nd}$ floor to the CUP 2$^{nd}$ floor. Uses planned for the former MME space are similar to the uses that were planned for the CUP that was to be constructed in the downtown hospital building, and impacts are anticipated to be similar. The improvements to the former MME space will be completed within the overall timeline and within the overall Project budget.

Any improvements to the remainder of the Kennedy Garage is not part of the IHC Project, but rather is a separate and unrelated project by a different project sponsor.[25] According to the Memorandum of Agreement (MOA), the City is the owner of the Kennedy Garage. The MOA states that the cost to repair the Kennedy Parking Garage is $3,000,000 (see MOA Section 4) and that the $3,000,000 will be allocated from the expected Upstate Revitalization Initiative (URI) grant that will be obtained by the City (see MOA Section 5). The MOA also provided that the City shall provide the following assistance to the new hospital at the City's expense: "consider in the development of the parking plan mentioned above, the dedication of at least 200 of the 450 parking stalls in Kennedy Garage of Hospital use" (see MOA Section 10(f)). However, the Project has evolved since the MOA was executed in 2017 and the parking space needs have been reduced. The IHC, as analyzed in the DEIS, is not relying on any spaces in the Kennedy Garage to satisfy its parking needs (see Response 79).

[25] Improvements to the Kennedy Garage would be for preventive maintenance of the parking structure (*i.e.*, drainage system, joints, waterproofing, surfacing, *etc.*) This type of maintenance and repair work is classified as a Type II action that is not subject to SEQRA review.

### 3.2 REGULATORY REVIEW AND APPROVALS

**Comment 18: Terry Tyoe, Environmental Analyst 2, NYSDEC, Region 6, Letter, 12/27/18:**

DEC is not listed as a potential agency under "Water and Wastewater System Improvements Approval of Plans" item 17, page 15 of the document. Please note that DEC approval of new or modified municipal sanitary sewers serving the proposed project may be required under 6 NYCRR Part 750-2.10(a). If a sanitary sewer lateral serving the proposed project is designed to convey 2,500 gallons per day or more, then DEC approval of the connection may be required under 6 NYCRR Part 750-1.2(82) and 6 NYCRR Part 750-2.10(h)(3)(i). Therefore, it is recommended that DEC be included as an agency in Table 1, Potential Permits and Approvals, under Water and Wastewater System Improvements Approval of Plans.

**Response 18:**

The table has been updated (See Section 1.3, Table 2 of this Responsiveness Summary).

**Comment 19: Terry Tyoe, Environmental Analyst 2, NYSDEC, Region 6, Letter, 12/27/18:**

Dependent upon final plans, permitting and/or registration may be required for:

- Air
- Article 15/24 (Excavation Fill, Stream Disturbance, Freshwater Wetlands, Water Quality; dependent upon final location of new transmission, water, sewer connections, if any)
- Chemical & Petroleum Bulk Storage
- SPDES Construction Stormwater
- Water Withdrawal

**Response 19:**

The comment is noted. See Response 18.

### 3.3 ALTERNATIVES CONSIDERED

**Comment 20: Patrick Becher, Chair of the Board of Directors, Greater Utica Chamber of Commerce, Public Hearing, 12/6/18:**

Of the three remaining sites, the downtown location, the existing St. Luke's and the state psychiatric center, the downtown site objectively scored the highest based on a wide range of critical criteria. Amongst some of the reasons identified in favor of the downtown site are the following: First the site will require no sewer offset credits. Secondly, the storm water management will be greatly improved with the use of pervious services, it will actually generate less runoff than the current configuration of the split hospitals. The water pressure capacity are very good which is something that I happen to know a little bit about.[26] They will not need a tank for fire storage needs because of the density of the water mains in that area. The downtown site is relatively close to a National Grid substation, from there they can run a dedicated underground cable and provide all the power to the hospital which will provide a very high level of reliability. Street grid is an asset. There are many ways to access and egress into the site. The site is also not immediately adjacent to any kind of a residential neighborhood. The site is also less than two miles from the Thruway, less than a half mile from the north-south Arterial and located along Routes 5 and 5S, which can greatly enhance the access to the facility for emergency services. The downtown location has the benefit of being planned in conjunction with the State DOT Oriskany Street 5S project, so that can all be handled at the same time. The site has high visibility, it really plays I think into a very carefully sustainability to smart road, repurposing of Urban parcels will be able to provide a higher

[26] Mr. Becher is also Executive Director of the Mohawk Valley Water Authority.

use for that land than exists in most situations. The site will not encroach, as I said, on residential neighborhoods. And finally and perhaps most importantly, this site can be a very important part of a broader downtown revitalization vision. So for all those reasons, the Chamber of Commerce would like to express its endorsement of this draft environmental impact statement, and we commend you on your efforts so far, and we are looking forward to the rest of the project.

**Response 20:**

The comment is noted.

**Comment 21: Tom Zalocha, Union Representative, Plumbers & Pipefitters Union, Public Hearing, 12/6/2019:**

St. Luke's is not within the required location to qualify for grant funding. Utica Psychiatric Center fell short with zoning requirements, accessibility and the relation to existing neighborhoods. With all of this taken into consideration along with the easy accessibility of Route 5S, Route 49 and the north-south Arterial, the downtown site has proven to be our best choice. The main reason for building in downtown Utica, in my opinion, is simply revitalization, progression for a better future for the greater Utica area.

**Response 21:**

The comment is noted.

**Comment 22: Stephen Keblish, Resident (Municipality Unspecified), Public Hearing, 12/6/18:**

The encroachment on a residential neighborhood was cited as a concern in the comparison study for the psych center; however, the fact that people live in or near the downtown site was completely ignored.

**Response 22:**

The siting study noted proximity to residential neighborhoods as a concern for the Psych Center because the area immediately adjacent to the Psych Center is residentially zoned and consists of a single family residential neighborhood and a middle school. The area immediately to the west of St. Luke's is also a single family residential neighborhood and is zoned residential. However, the zoning around the Downtown Site is Central Business and there are no residential zoning districts or single family residential uses adjacent to the Downtown Site. Single family homeowners have an expectation that the value and enjoyment of their properties will be protected, whereas, high rise apartment dwellers who choose to live in a city, would anticipate being surrounded by mixed uses. Accordingly, it was appropriate to consider incompatibility with site or adjacent zoning as a siting criterion with respect to the Psych Center and St. Luke's, but not with respect to the Downtown location.

**Comment 23: Stephen Keblish, Resident (Municipality Unspecified), Public Hearing, 12/6/18:**

The study does not account for how the psych center was eliminated from the final choices.

**Response 23:**

The purpose of the Site Selection Study was to grade the sites and present the information to the MVHS Board of Directors so it could make the ultimate decision with respect to which site best met the goals and objectives of MVHS. The Site Selection Study is clear on the reasons why the Psych Center was eliminated. For the reasons set forth in the Site Selection Study, in the DEIS and in this document, MVHS, in its discretion as a private entity, believed that the Downtown Site was the best location for the proposed IHC. The NYSDOH conditionally approved the CON application based on the information set forth therein, including the downtown location. See Comment 25.

**Comment 24: Richard Bause, Resident (Utica), Public Hearing, 12/6/18:**

St. Luke's campus…You got all that upgraded infrastructure, you got a state of the art power plant there providing power to the hospital and steam but also supplying the same thing to Utica College.

**Response 24:**

See Responses 26, 28, 35, 115, 123, and 126.

**Comment 25: MVHS Board of Directors, MVHS, Letter, 12/20/18:**

Our decision, to locate the new healthcare campus in Downtown Utica was made after extensive research and studies were performed. Criteria analyzed in these studies included access to the site by the populations we serve, environmental impacts and infrastructure requirements. An initial study was performed by Elan Planning, Design, & Landscape Architecture, PLLC (Elan) and O'Brien & Gere Engineers, Inc. (OBG), which prepared a comprehensive site evaluation of 10+ sites within Oneida County that could support a replacement facility. That report, issued on June 12, 2015, recommended the downtown Utica location.

Subsequently, Hammes Company, who MVHS began to engage in December 2014, provided a second opinion on the site recommendation of the initial study. After performing a comprehensive review of the report, Hammes confirmed the recommendation of the downtown site as the best option for MVHS to pursue.

The New York State legislation that allocated $300 million for the project requires that the new facility be located within Oneida County's largest population center. The downtown Utica site meets this condition. MVHS was awarded the $300 million Health Care Facility Transformation Grant in April 2017 by the New York State Department of Health (NYSDOH) and the downtown location was crucial to MVHS receiving that grant. Without this grant MVHS would not be able to financially support building a new healthcare campus.

On July 23, 2015, the MVHS Board of Directors unanimously approved the downtown location for the new, regional healthcare campus. The healthcare needs of our community are our priority and at the center of all we do. We chose downtown Utica after an extensive a review of all the information presented to us and our belief that the downtown Utica site would best serve the healthcare needs of our community for many years into the future.

**Response 25:**

The comment is noted.

**Comment 26: Gregory D. Eriksen, Bousquet Holstein, PLLC (on behalf of Angela Elefante), Letter, 12/26/18:**

We believe that an alternate location is preferable. In the analysis relied upon by the Draft EIS, the St. Luke's Hospital campus scored the same or better than the downtown location in terms of size, utilities, zoning approvals and impact fees, and environmental considerations. *See* Draft EIS at pgs. 28-32. Moreover, if one of the goals of the Project is truly to consolidate Utica's medical facilities, the St. Luke's location is the only location that physically places the new facility in proximity to Utica's existing healthcare infrastructure. Among other things, any patient travel between St. Luke's and the new facility will be logistically easy, as will any sort of resource-sharing that may be necessary between the two facilities. In addition, it is our understanding that the St. Luke's campus already has sufficient electrical capabilities to service the proposed new hospital. Locating the new hospital at St. Luke's would therefore eliminate the need to construct the central utility plant that has been proposed as part of the downtown location.

We urge that the Board reject the Draft EIS as written and urge that the Draft EIS be revised to include a full analysis of the St. Luke's campus location, with an eye toward relocating the proposed new hospital to the St. Luke's campus.

**Response 26:**

SEQRA requires that a DEIS include "a description and evaluation of the range of reasonable alternatives to the action that are feasible, considering the objectives and capabilities of the project sponsor." (6 NYCRR § 617.9(b)(5)(v).) "The purpose of requiring inclusion of reasonable alternatives to a proposed project is to aid the public and governmental bodies in assessing the relative costs and benefits of the proposal." See *Webster Assoc. v. Town of Webster, 59 N.Y.2d 220, 228 (1983)*. To be meaningful, such an assessment must be based on an awareness of all reasonable options other than the proposed action. The degree of detail with which each alternative must be discussed will, of course, vary with the circumstances and nature of each proposal." *Id*. See *Webster Assoc. v. Town of Webster, 59 N.Y.2d 220, 228 (1983)*. The regulations direct that an EIS be "analytical," but that it need not be "encyclopedic." (6 NYCRR § 617.9(b)(1).)

The SEQRA regulations recognize that the "objectives of a private project sponsor are important in determining what alternatives should be considered in an environmental impact statement." See *Matter of Applications for Permits for Crossroads Ventures, 2006 N.Y. ENV LEXIS 88, at *96 (Interim Deputy Comm'r Decision Dec. 29, 2006)*. "A description and evaluation of alternatives that manifestly would not achieve the objectives of the proposed project are not required by SEQRA." *Id*. (citing *Shellabarger v. Onondaga County Water Auth., 105 A.D.2d 1134, 1135 (4th Dept. 1984)*); *Save Our Parks v. City of New York, 2006 N.Y. Misc. LEXIS 2365, at *19-24 (Sup. Ct. N.Y. County Aug. 15, 2006)*. In fact, it is not for the Lead Agency to decide there are better alternatives than the one chosen. See *Coalition Against Lincoln W., Inc. v. Weinshall, 21 A.D.3d 215, 222, 799 N.Y.S.2d 205, 211 (1st Dept. 2005)*.

MVHS is a private applicant and has evaluated a reasonable range of alternatives to determine which would be feasible considering its own objectives and capabilities. Those considerations are important in the Lead Agency's SEQRA analysis, which does not require an evaluation of alternatives that do not achieve the proposed project's goals. See 6 NYCRR § 617.9(b)(5)(v); see also *Crossroads Ventures, 2006 N.Y. ENV LEXIS 88, at *96; Shellabarger, 105 A.D.2d at 1135*. Under SEQRA, the Lead Agency has considerable latitude to evaluate environmental effects and to choose among alternatives, the feasibility of which given the project sponsor's objectives and capabilities is a central factor. See *Jackson v. N.Y. State Urban Dev. Corp., 67 N.Y.2d 400, 417 (1986)*. The criteria established here, the scoring of those criteria, and the ultimate site selection were all carefully considered by the Project Sponsor in light of its objectives and capabilities and relevant environmental factors. The comment is based on disagreement with the methodologies used and conclusions reached by MVHS rather than any evidence.

The DEIS reveals that St. Luke's does not meet the goals and objectives of MVHS. The downtown Utica location was and still is the best location to satisfy all the goals and objectives of the Applicant, which include providing one integrated location for acute care with greater access to residents of the City of Utica, Oneida County and the region, particularly those populations of refugees and low-income individuals; to improve operational efficiency, patient satisfaction, and safety for both patients and caregivers; attracting new and younger providers; and to act as a catalyst for economic growth in downtown Utica in compliance with the Oneida County Health Care Facility Transformation Program Law. Specifically, grant funds became available for projects located in the City of Utica that consolidated multiple licensed health care facilities into an integrated system of care. In 2017, MVHS applied for and was awarded a grant for its proposal to construct a new integrated health care campus on the site it selected in downtown Utica. These grant monies cannot simply be shifted to an alternative site.

Moreover, expansion/upgrades to St. Luke's would be costly and difficult to achieve. For example, room sizes, door sizes and configuration create potential for falls, transfer difficulties and general movement of patients. In addition, patients are exposed to public areas and there is no clear separation of public and patient support. HVAC, communication, and pressurization systems are not optimal and upgrading existing space can be difficult and costly. Construction on the existing St. Luke's site also presents a challenge regarding construction phasing; construction and employee access; circulation; noise, vibration, other sensitivities. It is not known whether the existing cogeneration facility at St. Luke's would be capable of serving a larger complex at the same location. The age of St. Luke's does not provide for long term sustainability and would eliminate certain energy-efficiencies, which meet and exceed current day best practices and building code requirements that would be gained from the new facility.

**Comment 27: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

The Applicant was requested numerous times to disclose the Site Selection Study it relied upon in choosing the Downtown site. Instead, the Draft EIS supplies only a "Summary Memorandum" of the site selection process (and only in draft form). This appears at Appendix D to the Draft EIS.

The Applicant needs to submit the actual study its Board relied upon rather than a summary, so the Public and relevant authorities do not have to speculate on what was left out.

**Response 27:**

The study provided in the DEIS (Appendix D) is the only siting study relied on by the MVHS Board to make its siting decision. MVHS asked its consultant, Hammes, to review that study. Hammes reviewed the study and concurred with the result, however it did not issue a separate independent report.

**Comment 28: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

When Applicant announced in September, 2015, that it had chosen to build the Project at the Downtown site, it also stated that "In the event the downtown site proves not to be financially viable, we will move on to our second site option at the St. Luke's Campus, which the board feels will also serve the community well." This is an admission that the Project is feasible at the St. Luke's Campus in New Hartford.

**Response 28:**

As the comment noted, the Applicant's preferred site for the new IHC was, and still is, in downtown Utica.

The statement made in 2015 concerning alternative locations was based on information available at that time and is no longer relevant as the Downtown Site is financially viable. Specifically, availability of grant funding was uncertain until November of 2016 when the request for grant applications was issued by NYSDOH and ultimately awarded to MVHS for the Downtown Site in April 2017. Locating at St. Luke's does not satisfy the Applicant's goals to provide one integrated location for acute care with greater access to residents of the City of Utica, Oneida County and the region; to improve operational efficiency, patient satisfaction, and safety for both patients and caregivers; and to act as a catalyst for economic growth in downtown Utica in compliance with the grant awarded pursuant to Oneida County Health Care Facility Transformation Program Law. Additional goals and objectives that will be served by the downtown Utica location include delivering higher quality, more effective care with better community outcomes at a lower cost; serving the largest, most diverse population in Oneida County; and attracting new and younger providers.

Moreover, expansion/upgrades to St. Luke's would be costly and difficult to achieve. For example, room sizes, door sizes and configuration create potential for falls, transfer difficulties and general movement of patients. In addition, patients are exposed to public areas and there is no clear separation of public and patient support. HVAC, communication, and pressurization systems are not optimal and upgrading in existing space can be difficult and costly. Construction on the existing St. Luke's site also presents a challenge regarding construction phasing; construction and employee access, circulation; noise, vibration, other sensitivities. The age of St. Luke's does not provide for long term sustainability and would eliminate certain energy-efficiencies of a new facility, which meet and exceed current day best practices and building code requirements.

**Comment 29: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

Since an applicant under SEQRA cannot be made to consider sites it does not own (see 6 NYCRR 617.9(b)(5)(v)('g')), the Draft EIS needs to explain why the Applicant felt compelled to do so.

**Response 29:**

The regulatory language referenced by this comment is neither compulsory nor proscriptive, but rather uses the permissive word "may." As such, there is no prohibition on private developers considering other sites that may not be within their immediate control. MVHS is a private entity that provides a vital service for the benefit of the public. Accordingly, MVHS was free to consider any site to determine whether that site would satisfy its goals and objectives in evaluating a "range of reasonable alternatives" that are "feasible, considering the objectives and capabilities" of MVHS (see 6 NYCRR § 617.9(b)(5)(v)).

The comment is also inaccurate because MVHS holds purchase options on a significant number of the properties located within the downtown Utica Project footprint and is in active negotiations with several other owners to acquire the remaining properties. For those few properties that MVHS may not be able to acquire through negotiation, MVHS has asked Oneida County and the City of Utica URA to assist with the acquisition of those properties via *eminent domain* since the Project serves the public health and welfare by providing improved medical services to the populations in most need and by spurring economic development to revitalize a blighted area in accordance with the City's Urban Renewal Plan. See Responses 32, 47 and 60.

**Comment 30: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

Applicant's Project depends upon a grant provided under Public Health Law (PBH) Section 2825-b. The grant application will be judged on "the extent to which the applicant has engaged the community affected by the proposed capital project and the manner in which community engagement has shaped such capital project." (PBH 2825-b (4)(f)). The Applicant never at any time engaged the Public on the proposed location of the Project. In fact, there is evidence that local officials deliberately kept the discussion of facility location away from the Public (See word-searchable e-mail 'dump' or images, 9/1/15 e-mail, Anthony Brindisi to Steven DiMeo and Anthony Picente: "I don't want public opinion derailing this.") Had the Applicant engaged the Public at the site selection stage, Applicant would have been able to develop appropriate siting criteria to address the Public Interest (*e.g.*, convenience of the Public to access current medical providers and the new facility, loss of businesses and taxable properties, disruption to traffic patterns, need to construct new municipal facilities and public infrastructure, changes to community character, facility location relative to transportation of hazardous substances, *etc.*).

Given PBH 2825-b(4)(f), if the Applicant continues to pursue a site other than St. Luke's Campus, it needs to reopen the site selection process for Public Input and to develop appropriate criteria for choosing a site that protects the Public Interest.

**Response 30:**

As noted in Response 1, MVHS submitted an application for grant funds pursuant to the OCHCFTP in January 2017 and was awarded the grant on April 3, 2017. In connection with that application, MVHS was asked to address how *"[ ]…the Eligible Applicant engaged the community affected by the Eligible Project and the manner in which community engagement shaped the Eligible Project"* as required by PHL 2825-b(4)(f).

MVHS responded to the question as follows:

"Planning a project of this magnitude occurs in several stages over the course of years. Throughout this process, there has been and will continue to be opportunities for community engagement and education. In addition to education via local and regional news outlets, starting in 2015, MVHS officials have directly spoken with more than 600 individuals regarding the downtown health campus. Groups have included elected leaders (the City of Utica Common Council, Oneida County Legislators), neighborhood associations (Bagg's Square Association, Association of Block Coalitions, St. Elizabeth Medical Center Neighbors Group), local business leaders (Clinton Chamber of Commerce, the Greater Utica Chamber of Commerce, Mohawk Valley EDGE), higher education (Rust2Green, Hamilton College students and former employees), boards and groups associated with MVHS (current hospital board members for both Faxton-St. Luke's and St. Elizabeth Medical Center, St. Elizabeth

College of Nursing Board of Directors, MVHS Patient and Family Engagement Council), local retiree groups (former National Grid employees), historical preservation (Landmarks Society of Greater Utica), and community interest groups (Rotary Club of Utica, Garden Path Club, and the Faxton St. Luke's Healthcare Foundation's Women's Giving Circle). MVHS has also engaged with The Paige Group, a consultancy for public engagement[27]. The Paige Group's role is to act as an extension of the MVHS team to assist with public education and obtain community input for Project consideration. The Paige Group has conducted many stakeholder input sessions with a variety of individuals, business leaders, representatives and community organizations, such as:

- Oneida County Health Department
- Mohawk Valley Resource Center for Refugees
- Mohawk Valley Latino Association
- The Parkway Center
- Mohawk Valley Institute for Learning in Retirement.

In addition, MVHS hosted two public information sessions/community dialogues on January 10, 2017, in which approximately 300 community members participated. Participants were broken into groups to brainstorm factors that should be considered in the planning and design of the hospital and campus. This input, along with input from other community stakeholders, will be developed into guiding principles that will be used by the Project Steering Committee. In addition to meetings and direct stakeholder discussions, Project education materials and an online informational landing page with feedback form have been developed to keep the community informed on a variety of topics, including:

- Regional healthcare benefits of a new hospital campus
- Site selection and rationale for a downtown campus
- Estimated project timeline
- Frequently asked questions.

Several methods for feedback have been promoted within the community, including telephone, email, and via the landing page. MVHS will continue to deploy a robust community engagement program that will include:

- Formation of a Community Advisory Group. This group will be comprised of community representatives, and will be responsible for synthesizing and sharing community input with the Project Steering Committee. It will also provide feedback for consideration on Steering Committee plans.
- Expanded schedule of community presentations
- Additional opportunities for input as plan elements are established
- Large and small group meetings and discussions
- Community forums and/or symposiums
- Continued partnerships with local and regional media to convey plan elements and encourage community feedback"

Accordingly, selection of the Downtown Site was consistent with the requirements of Public Health Law Section 2825-B and does not need to be reopened as each of the statuatory factors has been addressed and considered by NYSDOH prior to awarding the grant to MVHS for the Downtown Site in April 2017. Finally, the comment fails to identify any rule of law, statute, or regulation that requires the site selection process to be reopened. See *Molinari v. City of N.Y., 146 Misc. 2d 713, 720 (Sup. Ct. Richmond County 1990).*

See also Response 36.

[27] MVHS's public engagement efforts were further described in DEIS Section 1.2.3.

**Comment 31: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

The Summary Memorandum states that a Geographic Information System analysis was initially used to "identify parcels 50 acres and larger that could potentially host a new combined facility". Of the 12 sites subsequently considered for "fatal flaws," an exception to the above rule appears to have been made for the Downtown Site because it is neither a "parcel" (actually being about 90 parcels as shown on County ownership maps) nor is it 50 acres (actually being from 17 to 34 acres depending upon how the site is defined). Since the other 11 sites (*e.g.*, 5 of them are golf courses) more closely match the 50-acre-parcel rule, the Downtown site is dissimilar to the others.

The Applicant needs to explain why an exception was made to its 50-acre-parcel site-screening rule to put the Downtown Site on the list of sites to be considered, otherwise its placement on the list appears arbitrary.

**Response 31:**

The DEIS as well as the Hospital Site Selection Summary Memorandum, attached to the DEIS as Appendix D, indicates that Urban Sites required 10-acres and suburban sites required 50-acres. The Downtown Site satisfied the 10-acre requirement for Urban Sites and, therefore, its consideration was not arbitrary.

**Comment 32: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

According to the Summary Memorandum, the 12 sites were screened for "fatal flaws" – "factors that could impact the development potential of the site." The Downtown Site is currently occupied by some 40 entities including Private Businesses, Not-For-Profits, and a Municipal Police Garage. It is also occupied by streets that would have to close to accommodate the Project. The Site has been in use for nearly 200 years. The length and level of use of the Downtown Site (detailed in Appendix E of the Draft EIS), which could be expected to complicate any redevelopment, make it markedly dissimilar to the other sites which are mostly outside the urban core.

The Applicant needs to explain why the current and past history of uses were not considered a "fatal flaw" that would warrant rejection of the Downtown Site, otherwise its "fatal flaw" analysis appears arbitrary.

**Response 32:**

Although the Project Site has been used to some extent for nearly 200 years, it has been chronically underused and blighted for almost 30 years. The Project Site is located in a HUB zone; is in a former Empire Zone; is designated as a potential EJ area; and is in the Urban Renewal Plan Utica Downtown Development Project Area. A HUB is a qualified census tract designated by the US Department of Housing and Urban Development (HUD) with either: (1) a poverty rate of at least 25 percent; or (2) 50 percent or more of its householders must have incomes below 60 percent of the area median household income. An EJ area is a U.S. Census block group of 250 to 500 households each that, in the Census, had populations that met or exceeded at least one of the following statistical thresholds: (1) At least 51.1% of the population in an urban area reported themselves to be members of minority groups; or (2) At least 23.59% of the population in an urban or rural area had household incomes below the federal poverty level. An Empire Zone was an area of up to two non-contiguous miles, in which tax incentives were offered by the State of New York to bring new businesses and jobs to the State. The Urban Renewal Plan Utica Downtown Development Project Area was established to eliminate slums, blight and obsolete buildings and create sites for new buildings to revitalize this area of downtown.

According to the City's Master Plan, the City's urban landscape is characterized by vacant or significantly under-utilized industrial buildings and many of its neighborhoods are either deteriorating or continuing to decline. The Urban Renewal Plan for the area encompassing the Project Site states that its purpose is "to revitalize this area of downtown." According to the Urban Renewal Plan, the "economic and physical revitalization of the project area is a critical public purpose for the community because of the area's location." In fact, the City of Utica URA is authorized to acquire property in the Project footprint through *eminent domain* for the purposes of economic redevelopment.

There are 79 individual tax map parcels owned by 37 different owners within the Project area because several of the parcels are used as assemblages in conjunction with other parcels or are under similar ownership. There are approximately 20-25 existing businesses and 4 active not-for-profit organizations. At least 9 of the businesses are small-scale auto parts/service or warehousing businesses conducted in garages or other low-quality retail space. The businesses also include 2 bars and an adult entertainment establishment. Other businesses include an HVAC contractor, fabrication business, billboard company, paint retailer, retail bookstore, dry cleaner, salon, and The Salvation Army. Most or all the properties at issue were not specifically constructed for the current use, but instead are adapted for second or third-generation, lower quality use and most can be easily relocated to other similarly situated areas. Approximately 20 properties are vacant or dilapidated and 8 of the properties are owned by the City's URA.

Accordingly, this area has been targeted by the City of Utica for economic redevelopment for years making it an appropriate location for consideration by MVHS. See photographs included in Response 47.

With respect to the police garage, see Response 4.

**Comment 33: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

After most of the sites were eliminated due to "fatal flaws" the Summary Memorandum indicates that the remaining three (St. Luke's, Downtown, and the Psych Center) were scored based on points assigned for certain criteria. [. . .] the Applicant made no effort to determine criteria to protect the Public Interest. The criteria that were chosen appear arbitrary/subjective. For example, proximity to the Thruway and Oriskany Blvd. is deemed important, but proximity to the Parkway/Pleasant/Burrstone corridor that would collect traffic from Corn Hill, South East Utica, and northeastern Town of New Hartford; and French Rd./Champlin Ave. that would collect traffic from South Utica and New Hanford Village, is not. Distance to employees (using zipcode "centroids" rather than actual distances) is deemed important, but distance to actual patients is not, and distance to medical providers is not.

The scoring appears equally arbitrary/subjective. Two points are assigned to Downtown for having a "Potential microgrid opportunity," while St. Luke's received no points for actually having a microgrid (the Co-Gen Facility). Why were 4 points not deducted from Downtown for the 2500 foot gas line referenced on Draft EIS p. 94/3527? Why was a point not added to St. Luke's for not encroaching on a potential federal wetland when the Draft EIS' "Capacity Analysis" (p. 1596/3527) demonstrates project elements could be arranged on-site so as not to encroach on the wetland? As previously indicated, the criteria have not been related to the purpose, objectives and goals of PBH 2825-b. In so far as the environmental criteria are concerned, they appear selective, subjectively scored and inadequately explained and have not been related to the legal requirements of SEQRA (as detailed under Part III, infra) to avoid/minimize environmental impacts or of other provisions of the Environmental Conservation Law. Applicant's choice of St. Luke's rather than the 2nd-ranked Psych Center as its "second option" suggests that even Applicant believes that the scoring process was arbitrary and subjective.

In light of the above, the criteria and scoring provisions of the site selection process appear to have been arbitrarily chosen and calculated to achieve a predetermined result, making them unreliable for decision-making.

**Response 33:**

The criteria established here, the scoring of those criteria, and the ultimate site selection were all carefully considered by the Project Sponsor in light of its objectives and capabilities and relevant environmental factors. See Comment 25. While the Commenter might disagree with the scoring, the Commenter has his own set of goals and objectives that are different from MVHS, the Project Sponsor. Rather, the comment is based on disagreement with the methodologies used and conclusions reached by MVHS rather than on any evidence. See Response 26 for a further discussion of alternative sites.

With respect to determining whether the location protected the public interest as required by the OCHCFTP, MVHS addressed this in its grant application. Home to one of the largest refugee resettlement agencies in the country, the Mohawk Valley Resource Center for Refugees (MVRCR) has, since the 1980s, resettled more than 15,000 individuals in Utica with ethnicities and nationalities including Vietnamese, Russian, Bosnian, Somali Bantu, Burmese and Nepali. Utica foreign-born residents constitute 17.6 percent of the population. 26.6 percent of households in Utica speak a language other than English. The new hospital/health campus downtown would improve access for our refugee population. (MVHS spends more than $800,000 annually to provide language assistance for health care services. In addition, MVHS employ four program specialists/interpreters, 22 per diem interpreters and works with outside agencies, covering 30 different languages and dialects.) Within the rural areas of Oneida County, there are also growing areas of Amish and Mennonite populations.

Relative to the NYSDOH's Prevention Quality Indicators (PQI), areas that need improved access to care in Oneida County include Utica, Rome and Waterville. These areas have total PQI rates that are 2 to 5 times greater than the average rates for Central and Upstate New York.

- Health Status Indicators Morbidity ranked Oneida County 53/62 counties in New York; premature death indicator allows focus on preventable morbidity and mortality and aligns with reducing inappropriate hospital use
- Leading causes of premature death, ranked in order: cancer, heart disease, chronic lower respiratory disease, unintentional injury, stroke
- Leading measure of community health is infant mortality influenced by socioeconomic, personal and system factors including access. Infant and neonatal death rates higher than New York State. (MVHS operates an Obstetrical (OB) Care Center and Women's Health Center for our Medicaid population and uninsured. The OB Care Center would move to the new hospital.)
- High cardiovascular disease mortality
- Aging population brings concerns of chronic disease, issues with access to timely and appropriate care due to inadequate supply of providers
- Rates of smoking, adult obesity (25.7% of adults and 36.5% of children and adolescents are considered obese), physical inactivity and teen birth rates are all higher than the state and national benchmark
- Dental Health significantly worse than NYS and national benchmark (MVHS operates a Dental Residency Program for Medicare and Medicaid patients)
- Percentage of adults with poor mental health higher than state (mental health and substance abuse 24.3%)
- Increased need for outpatient services as 85% of patient outcomes are determined outside of exam room/hospital bed

The IHC Project benefits Medicaid enrollees and uninsured individuals by providing improved and more equitable healthcare access in Oneida County. The poverty rate for Utica is 30.1%. Living in poverty or in a low-income household are economic barriers to care and limits an individual's or family's access to care –the population is more vulnerable. The Medicaid population shows high prevalence rates for chronic medical and behavioral health conditions along with high Prevention Quality Indicators (PQI) and Potentially Preventable Emergency Room Visits (PPV) rates. This is corroborated by information from the NYS Medicaid Chronic Health Conditions Inpatient/Emergency Department (ED) Utilization dataset. Chronic medical and behavioral health issues have a significant impact on hospital utilization in Oneida County. Specifically, approximately 35% of the region's safety net population either uses hospital Emergency Departments for primary care or do not access regular primary care. Linked with MVHS's work on Delivery System Reform Incentive Payment (DSRIP) implementation and primary care development, the new hospital Project will support the infrastructure to provide a more integrated and equitable delivery system for Oneida County. Specific DSRIP objectives include:

- Increasing the number of practices that have National Committee for Quality Assurance (NCQA) Level 3 Patient-Centered Medical Home (PCMH) recognition
- Reducing ED visits for ambulatory-sensitive conditions such as ED Care Triage for at-risk populations – provide a patient navigation program in our ED to coach patients about appropriate use of ED, address social needs and connect to primary care
- Reduce hospital admissions for super utilizers – Care Transitions Intervention Model to Reduce 30-Day Re-admissions
- Integration of behavioral health into primary care setting

The new IHC Project will continue DSRIP progress and be a:

- Catalyst for health promotion and education; the Project is located where the target population resides
- Catalyst for cultural change among providers and increased roles and collaboration with community based organizations to address social determinants of health
- Opportunity to improve built environment, drawing grocery stores to downtown to increase access to affordable fresh fruits and vegetables; and offering safe parks and a neighborhood that encourages physical activity

See also Responses 1 and 32 for further discussion of the Applicant's compliance with the OCHCFTP.

The 2015 Hospital Site Selection Process Summary Memorandum, which was included in the DEIS as Appendix D, accounted for the acceptable conditions for a community microgrid, which is defined by NYSERDA as a self-sustaining, small electric grid that will provide power to multiple customers, including residential and commercial customers, as well as crucial public services such as hospitals, first responders, and water treatment facilities. In the downtown location, the hospital would be situated next to the police station, the AUD (which could be a center of refuge), and City Hall. Accordingly, during the site selection process, these were considered a potential microgrid opportunity. Ultimately, as the Project design has progressed, a community microgrid was not pursued by MVHS, but that has little bearing on whether the Downtown Site serves the broader goals and objectives of the Applicant. For example, from a facilities perspective, the consolidation of two aging facilities (100 and 60 years) will provide a more energy-efficient environment, which meets and exceeds current day best practices and building codes.

In addition, one of the advantages to the downtown location is stable power from National Grid's Terminal Substation at Harbor Point. The terminal substation is built with a high level of redundancy and the Project's proposal to utilize underground conduit (vs aboveground lines) to service the IHC provides a greater degree of storm resiliency.

**Comment 34: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

Capacity Analysis: A "conceptual capacity analysis" was performed on the top three sites to, essentially, position the elements of the Project on those sites. Interestingly, the analysts chose to distinguish an "urban site" (with a 10 acre requirement) from a "suburban site" (with a 45 acre requirement) without explaining why an urban configuration of elements could not be employed on a suburban site to conserve space, avoid environmental impacts, and allow for future growth. Although an answer to the question "What is the cost premium of the recommended site?" is promised, it appears no where. (Draft EIS p. 39/3527, and Appendix D). Again, the selection of data and conclusions presented appear to be arbitrary and unreliable for decision-making.

**Response 34:**

The cost premium of the recommended site was reviewed by Hammes and shared with MVHS as part of a presentation to the Board of Directors – it was never part of the Site Selection Study and it is not relevant to the analysis required by SEQRA. See also Responses 26 and 33.

**Comment 35: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

The Site Selection Process' failure to incorporate 6 NYCRR 617.7(c)(1) criteria makes the Draft EIS incomplete and insufficient to support SEQR findings.

All levels of government that will fund and/or approve aspects of the Project are obliged to make a SEQR finding that the project will avoid or minimize adverse environmental impacts to the maximum extent practicable (etc.). All draft environmental impact statements must contain "a description and evaluation of the range of reasonable alternatives to the action that are feasible, considering the objectives and capabilities of the project sponsor…The range of alternatives may also include, as appropriate, alternative: (a) sites…" (6 NYCRR 617.9(b)(5)(v)(a)).

While an applicant cannot be made to consider sites it does not own or have under option as an alternative (see 6 NYCRR 617.9(b)(5)(v) ('g')) (*i.e.*, the Applicant here could not have been made to consider Downtown as an alternative), where an applicant, as the Applicant here, admits that it owns a site that meets all its objectives and capabilities, a government agency could not honestly make its SEQR finding if it appeared that the owned-site might better avoid/mitigate adverse environmental impacts.

The State has promulgated a non-exhaustive list of such adverse environmental impacts in 6 NYCRR Part 617.7 (c)(1). The Site Selection Process failed to incorporate these criteria into the analysis of site alternatives to permit the determination of which sites best minimized or avoided adverse environmental impacts (see Part III infra).

Failure to include this analysis is fatal to going forward on the Downtown choice because at this point the record is incomplete for the purposes of supporting a SEQR finding. The EIS needs to supply this information and be able to support a conclusion that the Downtown Site better minimizes/avoids environmental impacts.

**Response 35:**

MVHS is a private Project Sponsor and its decisions are not subject to SEQRA. Nevertheless, MVHS evaluated a reasonable range of alternatives to determine which site would be feasible for the IHC considering its own objectives and capabilities. Following selection of the Project Site, SEQRA requires further review to ensure that the site selected will minimize or avoid environmental impacts to the maximum extent practicable. The Downtown Site not only satisfied MVHS's goals and objectives, but also minimizes or avoids environmental impacts for the reasons identified in the DEIS and in this FEIS. For example, the Downtown Site will improve a blighted area, provide a link between other revitalization projects occurring within the City, improve outdated utility infrastructure, remediate any hazardous materials, and improve health care for all residents of the County, including those most in need.

Moreover, once a site has been selected and a project has been identified by a private sponsor, SEQRA does not require that multiple sites be evaluated pursuant to the regulatory criteria and that the site with the least environmental impact be selected. See *Palczynski v. County of Herkimer, 55 A.D.3d 1242, 1243 (4th Dept. 2008*). Instead, as the regulatory language indicates, the "objectives of a private project sponsor are important in determining what alternatives should be considered in an environmental impact statement." See *Crossroads Ventures, 2006 N.Y. ENV LEXIS 88, at *96*. In fact, it is not the intention of SEQRA for environmental factors to be the sole consideration in agency decision making. The purpose of SEQRA is to ensure that the environmental impacts of an action are weighed and balanced with social, economic and other considerations so that a suitable balance of social, economic and environmental factors may be incorporated in the decision-making process. SEQRA gives considerable discretion to agencies to make decisions consistent with social, economic and other essential considerations. This allows agencies to approve actions providing social or economic benefits even if all environmental impacts cannot be totally avoided or mitigated, which is not the case here.

Here, the DEIS identifies and describes the potential adverse impacts associated with the IHC Project and describes mitigation measures to minimize those potential adverse environmental impacts. This information must be weighed by the Planning Board, together with social and economic impacts, to determine whether the action: minimizes or avoids adverse environmental impacts to the maximum extent practicable, and, to incorporate into the decision those mitigation measures identified in the SEQR process as practicable.

See Responses 26 and 33.

**<u>Comment 36: Frank Montecalvo, Attorney at Law, Letter, 12/26/18</u>:**

Various e-mails (see e-mail 'dump' or images) exchanged in January and February 2015 (about the time that the PBH 2825-b funding was announced) among County Executive Anthony Picente; former State Senator, County Executive and current counsel to MVHS Raymond Meier; Lawrence Gilroy, Co-chairman of the Mohawk Valley Regional Economic Development Council (MVREDC); Mohawk Valley EDGE (MVEDGE) President Steven DiMeo and Assemblyman Anthony Brindisi; reveal that this group of individuals, who are effectively the local "gate-keepers" controlling Applicant's access to the State's Grant apparatus, wanted the Project to be located Downtown for urban renewal purposes and that they would try to steer the process to that end.

Relevant to this is the 2/3/2015 e-mail from Mr. DiMeo to Mr. Brindisi wherein Mr. DiMeo stated:

*"…My whole thought process in bringing Elan on board is to **make sure that we guide siting decision in favor of downtown**..." [emphasis supplied].*

MVEDGE hired Elan to do the site selection study, and the Summary Memorandum was provided by MVEDGE, Elan, and O'Brien & Gere (OBG, also author of the Draft EIS).

Also relevant is the 11/5/2015 e-mail from Mr. Brindisi to Mr. DiMeo, wherein Mr. Brindisi stated:

*"…I feel like walking away from this whole thing and telling the community and hospital if you don't want this thing downtown then good luck at St Luke's and don't come see me for one ounce of state support…"*

Against the backdrop of a Summary Memorandum that shows an inconsistent and somewhat arbitrary process, the still-secret status of the siting study, and Applicant's voluntary designation of St. Luke's Campus as its 'second option,' the e-mails suggest that the site selection process may have been tainted by undue influence and that the conclusions and recommendations of the site selection process, to the extent reported in the Draft EIS, reflect this influence and must be discounted accordingly.

**<u>Response 36</u>:**

The comment suggests a conspiracy where none exists. The referenced e-mails appear to be between current and former elected officials and individuals responsible for encouraging economic development. No one employed by MVHS or on the MVHS Board of Directors was included on these communications. Moreover, one of the e-mails raised in the comment occurred months after the Board of Directors selected the Project Site.

Communications between elected officials and entities that promote economic development regarding the placement of businesses and industries on certain sites to foster urban renewal are commonplace practice today. This is particularly the case where officials are trying to develop a site that has not had any interest in 20+ years. There is nothing unlawful or impermissible about these e-mail exchanges.

The MVHS Board of Directors made its site selection in July 2015 after extensive research and studies were performed. Criteria analyzed in these studies included access to the site by the populations served, environmental impacts and infrastructure requirements. In addition, significant funding was made available for sites located in downtown Utica, without which funding MVHS would be financially incapable of constructing a new healthcare campus.

The criteria established here, the scoring of those criteria, and the ultimate site selection were all carefully considered in light of MVHS's specific objectives and capabilities and relevant environmental factors.

Accordingly, it is completely proper for MVHS to consider the availability of state funding or public assistance in connection with its site selection process.

Nevertheless, it is worth noting that, the under the evaluation of monetary studies category, the Site Selection study is clear that the Downtown Site was not given preferential treatment because of the $300 million available under the NYSDOH grant.

See Responses 26, 28 and 33.

**Comment 37: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

The Applicant is unable to proceed on the Downtown Site in light of its ownership of a satisfactory site at St. Luke's Campus, and the lack of data in the EIS to support a conclusion that the Downtown Site better avoids/minimizes adverse impacts than the St. Luke's Campus – which is unlikely given the analysis in Part III below.

Applicant's choice of its St. Luke's Campus as a "second option" is supportable on the existing record because it already owns the site and cannot be made to consider sites it neither owns nor has options upon. If the Applicant wants to proceed with the Project on the St. Luke's Campus, it would accordingly have to revise its designs and the EIS.

**Response 37:**

As the comment noted, the Applicant's preferred site for a new integrated healthcare campus was, and still is, in downtown Utica. The downtown Utica location offers significant environmental and economic benefits including: improving a blighted area, providing a link between other revitalization projects occurring within the City, improving outdated utility infrastructure, remediating any hazardous materials, and improving health care for all residents of the County, including those most in need.

As noted above (Response 35), once a site has been selected and a project has been identified by a private sponsor, SEQRA does not require that multiple sites be evaluated pursuant to the regulatory criteria or that the site with the least environmental impact be selected. See *Palczynski v. County of Herkimer, 55 A.D.3d 1242, 1243 (4th Dept. 2008*). SEQRA requires the Lead Agency to balance the benefits of a project against its unavoidable environmental risks, but it does not require the Lead Agency to act in any particular matter or to reach a particular result. See *Jackson, 67 N.Y.2d at 417; Coalition against Lincoln West, Inc. v. New York, 94 A.D.2d 483 (1st Dept. 1983)*. Rather SEQRA gives the Lead Agency room for a reasonable exercise of discretion. *Id*.

See also Responses 26, 28, 29 and 35.

**Comment 38: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

Summary Conclusion on Matrix: Numerous adverse environmental impacts as identified by State regulation or law will be avoided or minimized by simply relocating the Project to the St. Luke's Campus.[28]

**Response 38:**

See Responses 26, 28, 29, 35 and 37.

While the Commenter has a different opinion with respect to the site selection, that is based solely on his opinion and his own personal goals and objectives. The Applicant's (Project Sponsor's) preferred site for the

[28] The Commenter supplemented their narrative comments with a matrix comparing the St. Luke's Campus with the Downtown site, based on the Commenter's identification of regulatory environmental criteria. The Commenter's complete matrix can be viewed in its entirety in Appendix B to this FEIS Responsiveness Summary.

new IHC was, and still is, in downtown Utica because the downtown Utica location satisfies all the goals and objectives of the Applicant.

**Comment 39: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

The SEQRA process is set forth in ENV Article 8 and its implementing regulations, 6 NYCRR Part 617 (State Environmental Quality Review, SEQR). As described in the SEQR Handbook (p.3):

> *"SEQR establishes a process to systematically consider environmental factors early in the planning stages of actions that are directly undertaken, funded or approved by local, regional and state agencies. By incorporating environmental review early in the planning stages, projects can be modified as needed to avoid adverse impacts on the environment."*

The availability of State funds for the Project was announced in early 2015, the site for the Project was announced in September, 2015, and we just got around to SEQR in 2018 when the Oneida County Industrial Development Agency made a Positive Declaration. Does that sound like "incorporating environmental review early in the planning stages" so that "projects can be modified as needed to avoid adverse impacts on the environment?" Why was SEQR not part of the planning of the Project from the very beginning, including the choice of the site? As noted under Part I Section I, the site of a project is an appropriate consideration under SEQR, and the State promulgated a non-exhaustive list of those actions considered to have significant adverse impacts (6 NYCRR 617.7(c)(1)). This could have been used to help screen or rank the sites – but it was not.

People may disagree with how the regulations were applied or sites ranked in Part III above, however, the process only took a few hours. This Project deserved at least that level of attention being paid to the environmental consequences of site selection. Most people would probably intuitively conclude that trying to shoehorn a hospital with acres of parking into the middle of a Central Business District that was built for another era, another style of development, and a different purpose would be more disruptive to the environment than locating the hospital on a site that had enough room and had been specifically designed for that use. It is no surprise that the choice of site is still a controversial topic after three years.

For a major project such as this, ENV 8-0109 requires preparation of an EIS. The regulations make clear that a government agency cannot undertake, fund or approve of an action until it has complied with the provisions of SEQR (see 6 NYCRR 617.3 (a)). But that is, in deed, what happened at least as far back as Summer 2016 when Oneida County put county employees, and Utica put city employees (the Planning Board's Staff), to the task of engaging in regular meetings with MVHS to help plan for the Project at the Downtown Site, because government employee time is money.

If the applicability of SEQR and need for an EIS was not apparent to the local authorities at that point in time, then it should have been apparent when the County approved funding for MVEDGE to provide property appraisal services for MVHS aiding the pursuit of the Downtown Site. The County should have stopped further action and opened the SEQR process then, but it did not. Nothing was done about SEQR until there was an "application" that triggered a review – but, as noted above, the law wants the environment taken into consideration "early in the planning stages" so that "projects can be modified as needed to avoid adverse impacts on the environment." Here, the County and City had employees planning this project without the environmental information required by law. It is a shame that so much time and money was spent on a flawed process.

Like the Site Selection Process appears to have been tainted by undue influence, the entire EIS appears tainted as well. People who have personally invested their time toward securing the Project for Downtown will have difficulty focusing on another site – an impossibility for those where the alternate site is in another jurisdiction.

At this point in time the Planning Board is faced with (1) an EIS that cannot support a SEQR finding because St. Luke's appears to be the environmentally superior site and (2) having to give up jurisdiction because it has no legal authority in New Hartford.

The EIS must be rejected as inadequate, and the process reopened for a new Lead Agency to produce a revised Draft EIS that addresses all the open issues identified herein.

**Response 39**:

This comment demonstrates a basic misunderstanding of the SEQRA process. In fact, SEQRA specifically identifies information collection including basic data collection and research, water quality and pollution studies, traffic counts, engineering studies, surveys, subsurface investigations and soils studies as a Type II action, not requiring further review. Likewise, conducting concurrent environmental, engineering, economic, feasibility and other studies and preliminary planning and budgetary processes necessary to the formulation of a proposal for action is also a Type II action under SEQRA. Although the County and the City may have agreed to assist with preliminary planning efforts, none of these actions committed either agency to approve the final action. In fact, such public/private interaction during the planning process is consistent with the very spirit of SEQRA.

The comment takes issue with the fact that nothing was done about SEQRA until an application was submitted that triggered its review. Yet, this is the precise process provided by the regulations. Neither MVHS nor any of the Involved Agencies was required to do more.

While this comment disagrees with the conclusions reached by MVHS in connection with its site selection decision, this opinion is based on the goals and objectives of the commenter and not on the goals and objectives of MVHS. See Responses 26, 28, 29, 32 and 35.

**Comment 40: Michael Galime, City of Utica Council President, Letter, 12/27/18**:

The site study did not include any financial implications for Utica, NY as a municipality, or the municipal energy and water delivery entities.

The site study did not include the current businesses and property owners in the Utica locations.

The site study treated all locations and pre-prepared assembled sites. Although there is a claimed need to build the hospital in the proposed location to garner the 300-million-dollar grant, this cannot be used as an [sic] to ignore that the site study did not include a clear state of the City of Utica.

The only guarantee that the site parcels may be assembled is via Eminent Domain. Under SEQRA, Eminent Domain is not guaranteed to remediate the impact to the affected businesses and property owners or the City of Utica. Eminent Domain will only remediate the issue of assembling the site for MVHS, who is not part of the current environment of the proposed site, and only a benefactor of the process.

The site study point system may have arrived at an inadequate conclusion due to the exclusion of key environment factors, which could render the proposed budget for the compilation of this project inadequate. This must be studied, and MVHS must respond with adequate remediation for the above-mentioned issues, and any new issues that may be found.

This should not rule out the current site, but the planning board (lead agency) must insure the real cost and impact of the current site use is stated, and insure that MVHS can complete, prior to approval.

**Response 40**:

These comments relate to the site study relied on by MVHS in connection with its decision to select the downtown Utica site for the new IHC. MVHS is a private entity, albeit one that serves the public health, with a specific set of goals and objectives. Accordingly, the criteria relied on in the site study were based on the capacity of the sites under review to serve the hospital operations. Nothing more was required. See Responses 26, 32 and 35 for more detail.

Once the Project Site was selected and the environmental review process commenced, the DEIS was prepared to consider the potential environmental impacts associated with the Project and ways to minimize or avoid those impacts. Although economic impacts are not required to be analyzed as part of the DEIS, economic considerations are important in the overall balancing required by SEQRA as part of each agencies' Findings Statement.

Here, the DEIS did evaluate the environmental impacts associated with the proposed water and energy usage and determined that there was adequate capacity in both areas to serve the IHC. Should any improvements be required, those improvements will be covered by MVHS as part of the Project. Likewise, the DEIS did consider the potential for hazardous substances to be uncovered and the Project budget includes money to address any remediation required.

With respect to the state of the City of Utica and the potential need for *eminent domain*, please refer to Responses 28 and 32.

Finally, a Lead Agency is not required to take a hard look at the economic feasibility of a project, particularly when public funding is involved. See *Kirquel Dev., Ltd. v. Planning Bd. of Town of Cortlandt, 96 A.D.3d 754, 755 (2d Dept. 2012); Tudor City Ass'n v. City of New York, 225 A.D.2d 367 (1st Dept. 1996)*.

**Comment 41: Stephen N. Keblish, Jr., Resident (Utica), Email, 12/27/18:**

Rationales for selecting finalist sites. The site selection process, flawed as it was, determined that the Psych Center and Downtown were the best two sites. But no rationale is given for why the Psych Center was eliminated from final consideration. Additionally, it is not made clear why the Downtown site was selected over the St. Luke s site given that between those two options, St. Luke s offered fewer adverse environmental impacts and was already heal [sic] by MVHS.

**Response 41:**

MVHS is a private entity with its own goals and objectives and is free to make site selection decisions with those goals and objectives in mind. See Comment 25 and Responses 26, 28, 29, 32 33, 35 and 37.

**Comment 42: Stephen N. Keblish, Jr., Resident (Utica), Email, 12/27/18:**

Financial feasibility study. In September 2015, MVHS announced it chose Downtown, but retained St. Luke s as an alternative if Downtown proved financial infeasible (**https://www.uticaod.com/news/20160403/decision-made-new-hospital-to-be-built-in-downtown-utica**) . However the study that determined feasibility is not included in the site selection analysis.

**Response 42:**

See Comment 25 and Responses 28 and 40.

**Comment 43: Stephen N. Keblish, Jr., Resident (Utica), Email, 12/27/18:**

The Site Selection Matrix.

- Mathematical Errors – The matrix using weighing to balance the results. However the wrong denominator was used in some cases. Additionally, scores were added after being rounded. By adding and then rounded, the results are more accurate. (See the revised matrix below.)
- Observational Errors – In several cases, points were awarded contrary to reality. Adjustments are made to reflect observational truth. (See revised matrix below[29].)

[29] Included in Appendix B to this FEIS Responsiveness Summary.

- Omissions – Evaluations should have been conducted on a wide range of issues, especially as related to healthcare, public finances, Smart Growth, community plans, and project objectives. However, as stated in emails since, the project was guided from the beginning toward the outcome of steering the hospital toward the downtown location.
- Despite not having public support (see attached polling results[30]), there is an expectation that condemning authorities will be successful in executing eminent domain action to fully assemble the downtown site. Proving that the downtown site is in the public interest will require a full analysis.
- A Smart Growth analysis of the sites is added below to show how poorly the downtown site stands up outside the narrow set of parameter measured by EDGE.[31]

**Response 43:**

While the Commenter has a different opinion with respect to the site selection process, that opinion is based solely on his own personal goals and objectives. The Applicant's preferred site for a new integrated healthcare campus was, and still is, in downtown Utica. This is because the downtown Utica location was and still is the best location to satisfy all the goals and objectives of the Applicant, which include delivering higher quality, more effective care with better community outcomes at a lower cost; serving the largest, most diverse population in Oneida County; attracting new and younger providers; and spurring economic development and revitalizing downtown in compliance with the Oneida County Health Care Facility Transformation Program Law. See also Responses 1, 26, 28, 32, 33, 35, 37 and 38.

Public support is not required prior to the exercise of *eminent domain*. Considering the blighted nature of the site, located in a HUB zone; in a former Empire Zone; designated as a potential EJ area; and in the Urban Renewal Plan Utica Downtown Development Project Area, the Project will improve the entire area. In fact, the City's Urban Renewal Plan specifically authorizes the URA to condemn property in this area for economic development.

Finally, Development of IHC in Downtown Utica is the antithesis of sprawl and instead represents smart growth, by focusing on urban infill and concentrating growth in compact walkable urban centers. See Response 234.

**Comment 44: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18:**

The DEIS is incomplete for failure to append the entire site selection study. See DEIS, Appendix D (containing only the executive summary). This omission, in conjunction with the brief public comment period (with the comment deadline two days after Christmas), appears to be a calculated measure to preclude meaningful public review.

As fully detailed in the comments submitted by Frank Montecalvo, Esq., dated December 26, 2018 (Part I.K), selection of the Downtown Site for the IHC long preceded the commencement of any type of SEQRA review, rendering the site selection process described in the DEIS a total sham. As reflected in Mr. Montecalvo's comments, the site selection process was designed to have a pre-determined outcome; that is, (1) the Downtown Site was selected and promoted prior to any site study, (2) the consultants hired later to perform the site study were hired with the expectation and aim of designing the study to result in selection of the Downtown Site, and (3) the Applicant was strong-armed into approving the Downtown Site as its preferred choice. For this reason alone, the DEIS is fatally defective, and further analysis and a supplemental DEIS are required relative to site selection.

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[30] Included in Appendix B to this FEIS Responsiveness Summary.

[31] The Commenter provided their own site selection matrix, which has been omitted from the comment narrative, but provided in its entirety for review within Appendix B to this FEIS Responsiveness Summary.

**Response 44:**

The full site selection study was appended as Appendix D to the DEIS. See Responses 26, 28, 32, 33, 35, 36, 37 and 38.

**Comment 45: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18:**

As for the substance of the executive summary, this, too, shows that the site selection process was anything but objective and impartial, as criteria were highly subjective and of questionable validity, and scoring of sites and the ultimate selection of the Downtown Site are suspect at best. In this regard, we adopt and incorporate herein by reference the comments of Mr. Montecalvo.

**Response 45:**

The criteria established here, the scoring of those criteria, and the ultimate site selection were all carefully considered in light of the Project Sponsor's objectives and capabilities and relevant environmental factors. See Comment 25 and Responses 26, 28, 32, 33, 35, 37 and 38.

**Comment 46: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18:**

The DEIS is fatally defective for failing to identify the St. Luke Campus as a practicable avoidance/mitigation measure relative to a host of significant adverse impacts associated with the Downtown Site, hence making the St. Luke Campus the alternative that avoids or mitigates adverse impacts to the maximum extent practicable.

**Response 46:**

See Responses 26, 28, 33, 35 and 37.

**Comment 47: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18:**

These impacts include, but are not limited to, the following:

- Impacts from contaminated soils due to prior industrial use of the Downtown Site (land, air [fugitive dust], surface water, ground water) would be avoided by developing the IHC on the St. Luke Campus.
- Massive impacts to community character, aesthetic resources and historic/archaeological resources would be avoided by developing the IHC on the St. Luke Campus.
- Material conflicts with community plans/goals would be avoided by developing the IHC on the St. Luke Campus, as the proposed uses are fully consistent with New Hartford zoning and plans, and the St. Luke Campus is currently being used for medical/health-related purposes.
- Impacts to human health from potentially catastrophic events related to the CSX rail line, and impacts to human health potentially resulting from excavation of contaminated soils on the Downtown Site, would be avoided by developing the IHC on the St. Luke Campus.
- Impacts to transportation/traffic (due to street closures/destruction of a portion of the Street Grid) would be avoided by developing the IHC on the St. Luke Campus.
- Impacts relative to environmental justice – *i.e.*, the displacement of this entire neighborhood and the charitable services located there – would be avoided by moving the IHC to the St. Luke Campus, as this site is already being used for an institutional use and would not require the displacement of any environmental justice area.

- The need to develop information on cumulative impacts relative to the Nexus Project would be avoided by developing the IHC on the St. Luke Campus.
- Were the IHC developed at the St. Luke Campus, it would result in a negligible increase of approximately 27 beds. Therefore, no new or significant increase in impacts should be expected at this site. That is, the nature and intensity of operational environmental impacts (*e.g.*, surface water, groundwater, air, aesthetic resources, transportation, utilities, energy, noise, odor, human health and solid waste impacts) would be minimal and certainly far less than at the Downtown Site.
- Last, but not least, issues regarding site access or invoking eminent domain (and the resulting disruption) do not exist at the St. Luke Campus, given that the Applicant owns this property. Relative to the Downtown Site, if the Applicant has the power of eminent domain, invoking that power will adversely impact and be disruptive to affected property owners; of course, any such impacts would be avoided by utilizing the St. Luke Campus for the IHC project. If the Applicant does not have the power of eminent domain, the inability of the Applicant to complete the consultation process required under article 14 of the PRHPL (and adequately identify and explore practicable mitigation measures in the SEQRA process) demonstrates that the Downtown Site is a defective site that should be excluded from analysis.

At the end of the day, the DEIS does not provide an adequate impact evaluation or cogent support for locating the IHC at the Downtown Site. Reduced to its essence, developing the IHC at the Downtown Site will result in massive unavoidable, unmitigable environmental impacts – including the destruction of a vibrant, historically and culturally significant neighborhood, in contravention of the City Master Plan and other officially adopted protections for historic districts. And, all of this havoc will occur, for the net benefit of 27 hospital beds, which readily could be incorporated into the existing medical campus at St. Luke's and, thereby, avoid the broad-scale destruction of the Columbia-Lafayette neighborhood.

**Response 47**:

See Responses 26, 28, 32, 33, 35, 37, 38, 43 and 134. In addition, the DEIS, as well as many of the responses in this FEIS Responsiveness Summary, consider the impacts associated with contaminated soils due to prior industrial use of the Downtown Site (land, air [fugitive dust], surface water, ground water) (Response 142), impacts to community character, aesthetic resources and historic/archaeological resources (Responses 47, 60 and 63), community plans/goals (Response 144), human health (Response 134), transportation/traffic (Responses 76 and 77), Environmental Justice (Response 230), and cumulative impacts (Response 125) together with ways to mitigate or avoid those impacts to the maximum extent practicable. Together with DASNY, MVHS has also reached agreement with OPRHP (see Response 63) thereby completing the consultation process required under article 14 of the Parks, Recreation and Historic Preservation Law (PRHPL).

**Figure 15. 336 Columbia Street Facing South**

**Figure 16. 335 Columbia Street Facing Southeast**

As noted in Figure 15 to Figure 23 and in the Phase 1A Architectural Inventory (DEIS Appendix E), the Columbia-Lafayette neighborhood is not a vibrant, historically and culturally significant neighborhood. It is a documented blighted area, located in a HUB zone; in a former Empire Zone; designated as a potential EJ area; and in the Urban Renewal Plan Utica Downtown Development Project Area. Despite revitalization of surrounding areas over the years, there has been little development in this area for 20+ years. See also Response 32.

**Figure 17. Haberer Building Looking Northwest (336 Columbia Street)**

**Figure 18. 338 – 358 Columbia Street Looking Northwest**

**Figure 19. 406 Columbia Street Looking East-Northeast**

**Figure 20. 317 Lafayette Looking Northwest**

**Figure 21. 418 Lafayette Street Facing North**


**Figure 22. 510 – 512 Lafayette Street Looking Northwest**

**Figure 23. 529 Oriskany Street Looking Northeast**

## 3.4 LAND

**Comment 48: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

Impact on Land: This topic is addressed in Draft EIS Section 3.1. Exposure to impacted soils due to past urban use is recognized to be a concern. The EIS needs to acknowledge that this concern could be mitigated by Relocation of the Project to the St. Luke's Campus due to the relative lack of prior development there.

**Response 48:**

The purpose of SEQRA is to evaluate potential impacts compared to the baseline conditions of the selected site. The comment focuses on the St. Luke's Campus as an alternative for the Project as proposed, and an analysis of that potential site was conducted. However, utilizing the St. Luke's Campus as the Project Site would not achieve the Project's goals and would entail significant additional costs to upgrade as detailed above. Even if the St.

Luke's site did satisfy MVHS's objectives, the impacts on land with respect to construction would be similar for either location.

See Responses 26, 28, 32, 35, 37 and 38.

## 3.5 SURFACE WATER

**Comment 49: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

Impact on Surface Water: This topic is addressed in Draft EIS Sections 3.2 (Surface Water) and 3.9 (Utilities). Section 3.2. acknowledges that segments of the Mohawk River and Barge Canal down gradient from the Downtown site have impaired water quality, that runoff from the site could impact surface water, and that certain measures can be employed to mitigate these impacts. The following issues remain to be addressed, however:

Section 3.9 states that the new facility is expected to generate 187,000 gallons per day (gpd) of waste water; however, it also states that facility average water demand will be 500 gallons per minute (gpm), which equals 720,000 gpd. The 533,000 gpd difference between what is going into and what is coming out of the facility is unaccounted for, suggesting that the facility could potentially generate as much as 720,000 gpd (500 gpm) of waste water. Since that amount would be greater than the 360 gpm design flow that the local Publicly Owned Treatment Works (POTW) indicated it could accept (Draft EIS p3525/3527), there is a potential violation of the Clean Water Act that needs to be resolved.

**Response 49:**

Water demand is based on the maximum flow anticipated to be required by the hospital during the busiest times. Maximum flow values do not occur consistently over the full 24-hours in a single day, and consist of both domestic uses and cooling tower uses. Peak (maximum) water demand is anticipated to be approximately 484 gpm for domestic uses and 168 gpm for cooling tower uses, totaling 652 gpm. Daily water usage is anticipated to be in the range of 243,360 gallons for domestic uses, and seasonally an additional 146,880 gallons per day are anticipated to be used for cooling tower use.

Similar to water demand, sanitary sewer discharge is not steady flow for the entire 24-hour period. The maximum design discharge for sanitary sewage leaving the hospital is estimated at approximately 387 gpm. Daily sewage discharge is anticipated to be 185,760 gallons.

The sanitary waste estimate does not correspond to the domestic water usage because some of the water does not get discharged to the sanitary sewer. Some of the water is used for cooking, cleaning, irrigation, humidification, human consumption, and other processes (cooling towers) which do not make it back into the sanitary sewer system. The estimates provided for water and sewer usage are approximate based on current sizing methodologies and statistics. It should be noted that all potable water entering the new IHC will either evaporate to the atmosphere, be returned to the sanitary sewer, be consumed and transported off-site, or in limited circumstances where appropriate, be discharged to the storm sewer.

**Comment 50: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

Assuming that the POTW has sufficient capacity to handle the wastewater from the facility, it is not clear from the Draft EIS that all the wastewater will reach the POTW due to the combined sewers and Combined Sewer Overflows (CSOs) that exist in the City of Utica. As noted above, the facility will be a significant new source of waste water in Utica. The route that the waste water will take from the facility to its ultimate disposition in the environment needs to be identified and traced. The illustration of the sanitary sewers proposed to serve the facility (Draft EIS p98/3527) does not show the ultimate disposition point. If the facility's wastewater at any point flows past a CSO, some of it could end up in the River or Canal untreated, further impairing water quality, possibly causing a violation of the Clean Water Act, and/or leading to a reclassification of the CSO as an illegal Sanitary Sewer Overflow (SSO), which would lead to an environmental enforcement action against the City of

Utica. The EIS needs to clarify where the wastewater will wind up and whether it would exacerbate water quality impairment.

**Response 50:**

Wastewater from the hospital will discharge to an improved existing 24" diameter sewer in Columbia Street that flows west to State Street, where it discharges to the existing 4-foot x 4-foot State Street Trunk Sewer. From there, it flows approximately 1,300 feet north to its discharge at the Railroad Interceptor Sewer. The Railroad Interceptor Sewer ultimately flows to the Oneida County Water Pollution Control Plant. The City of Utica operates a legally permitted Combined Sewer System (CSS), under the conditions of a SPDES Permit issued by the NYSDEC. The CSS is operated in accordance with the NYSDEC approved Long Term Control Plan (LTCP). The commentary above regarding the City's permitted Combined Sewer Overflows (CSOs) and the legality of discharging additional flow to the CSS is incorrect.

The existing 4-foot x 4-foot State Street Trunk Sewer has been modeled, and the results of the hydraulic model indicate there is capacity for the additional flow from the hospital and other projects.

**Comment 51: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

Given the recent demolition of the Tartan Textile Building to make way for the Nexus Sports Center, the sports-and-entertainment "U District" envisioned for the area next to the Auditorium and across Oriskany Boulevard from the Project site is no longer speculation. The potential generation of waste water and runoff from the U District needs to be examined with all the above as a Cumulative Impact.

**Response 51:**

As previously stated (see Response 50), results of hydraulic modeling indicated excess capacity in the State Street Trunk Sewer. In addition, the City has undertaken multiple CSO Control Projects (A1 through A4, A8.1 and A9.2, as described in the LTCP and summarized in DEIS Section 3.9) over the last 6 years that have all resulted in excess capacity in the Railroad Interceptor Sewer, which is where wastewater from the Adirondack Bank Center expansion (NEXUS Center or NEXUS) will be conveyed.

Based on a review of internet-based aerial photographs, the former Tartan Textile site consisted of 100% impervious surfaces, covered completely by buildings or pavement. It is not possible to construct a project at the Tartan site that will result in more stormwater runoff than previously existed, therefore no significant adverse stormwater impacts are anticipated from the future NEXUS project. Sponsors of the IHC, as well as the NEXUS project, will be required to implement stormwater management in accordance with New York State requirements, which control the rate and quality of runoff leaving the site.

**Comment 52: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

The Draft EIS fails to consider relocation of the Project to the St. Luke's Campus as mitigation. (a) The number of patient beds will be close to those currently/historically on site, suggesting that the Project environmentally would be the replacement of an existing facility on site with no new impacts other than construction/demolition. (b) The federal wetland on-site naturally buffers surface water impacts. (c) Redirection of all sanitary waste flows through the Sauquoit Creek Pump Station will mean that no untreated waste will reach the River/Canal once current Consent Order work is completed. (d) There are no pending large projects nearby that would cause cumulative impacts.

**Response 52:**

See Responses 28, 48 and 50.

As described in the DEIS, potential surface water impacts at the Downtown Site can, and will be mitigated through Project conformance to the NYSDEC Stormwater Management Design Manual. The Commenter should note that sanitary flow from the majority of the St. Luke's site flows to the City of Utica's Combined Sewer

System, not the suburban sanitary sewer systems tributary to the Sauquoit Creek Pumping Station subject to the Consent Order mentioned above by the Commenter. The large-diameter sanitary sewer mains that are available at the Downtown Site are not available in the suburban sanitary systems. In fact, all municipal, non-City sewers within approximately ½-mile radius from St. Luke's do not exceed 8" in diameter, and would not be suitable for wastewater discharge from a new facility without significant upgrades.

**Comment 53: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

Impact on Flooding: This topic is inadequately addressed in Draft EIS Section 3.2. On July 1, 2017, significant flooding (causing abandonment of cars, risk to human life, and property damage) occurred on a newly reconstructed and re-opened section of the North-South Arterial and adjacent Lincoln Avenue in an area labeled "area of minimal flood hazard" on the federal map. Per media reports State DOT officials claimed that their drains worked properly but indicated there was insufficient capacity in the storm sewers or receiving stream to prevent the flooding from occurring. This flooding occurred approximately one half-mile from and at a higher elevation than the Project site. The Draft EIS mentions this event (p 57/3527) but fails to elaborate on it in spite of the concern being identified during Scoping. The Project description indicates that some existing storm sewers will be removed, some will be used, and others will be constructed. However, the Draft EIS fails to reveal whether the Project will depend upon any of the systems that were overwhelmed by the 7/1/17 storm. That information should be put in the final EIS.

**Response 53:**

The flooding referenced by the Commenter occurred in a drainage area tributary to Nail Creek, which flows through the City in an enclosed culvert adjacent to the North-South Arterial from approximately Burrstone Road to Sunset Ave, where it turns slightly to the west and continues its northward travel just west of Sunset Ave, under the FX Matt Brewery, under Oriskany Street, eventually daylighting just south of the CSX railroad tracks near Haak Avenue.

The referenced floodwaters appear to have resulted from overland flow from the south and east that collected in a low spot in the newly constructed North/South Arterial, unable to continue downstream/downhill due to the center concrete barrier and the incline that rises to the north towards Court Street. The Project Site, although slightly lower in elevation, is hydraulically separated from the 7/1/2017 flooded area by the high spot in the North/South Arterial at Court Street, which essentially functions as a dam.

The existing and proposed storm sewers for the IHC Project do not rely on the drainage systems that were apparently overwhelmed by the 7/1/2017 storm. There are two separate storm sewer outfalls that may be utilized for the Project; one discharges to an open ditch east of Nail Creek, that then continues to Nail Creek just south of the CSX railroad tracks, and the other discharges directly to the Mohawk River. approximately 2,300-feet north of the Project Site. A third storm sewer outfall, which is currently in the planning phases, would be available to the Project Site, and will discharge directly to a low area connected to the Mohawk River east of the North/South Arterial and north of the CSX railroad tracks.

**Comment 54: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

The Draft EIS acknowledges that full build out of the Project has the potential to increase stormwater runoff and exacerbate downgradient flooding during storms (p. 60/3527) but dismisses the issue with a statement that the Project will result in more pervious surfaces than now (implying less runoff). The Project's acres of new, unbroken pavement are expected to have a different water retention characteristic and likely will be less able to retain/slow/infiltrate runoff than the existing patchwork of old/broken pavement, sidewalks, roofs, yards, *etc*. Whether or not flooding will actually occur cannot be known without calculations using surface characteristics, areas, and design storms. The EIS should use the rainfall pattern of the 7/1/17 storm to produce a hydrograph of the runoff, and use same to determine if the storm sewers and streams serving the Project site have the capacity to carry away the storm water to the Mohawk River/Canal without creating urban flooding.

**Response 54:**

As stated in the DEIS (Section 3.2), the stormwater management infrastructure for the proposed downtown IHC will be designed in accordance with the NYS Stormwater Management Design Manual (Design Manual), as required by NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity (Permit No. GP-0-15-002). For redevelopment projects, such as the proposed downtown hospital, Chapter 9 of the Design Manual requires a comparison of pre-development impervious surfaces to post-development impervious surfaces, with the stormwater management design based on the net gain or net loss of impervious surfaces.

From Section 9.1 (**http://www.dec.ny.gov/chemical/29072.html**): *"Redevelopment of previously developed sites is encouraged from a watershed protection standpoint because it often provides an opportunity to conserve natural resources in less impacted areas by targeting development to areas with existing services and infrastructure. At the same time, redevelopment provides an opportunity to correct existing problems and reduce pollutant discharges from older developed areas that were constructed without effective stormwater pollution controls.*"

From Section 9.2.1: *"If the redevelopment activities result in no change to hydrology that increases the discharge rate from the project site, the ten-year and hundred-year criteria do not apply. This is true because the calculated discharge for pre-development versus post-development flows result in zero net increase"*

Additionally, there is no requirement to use a single discreet storm event for design. The standard is to use published storm data found at **http://precip.eas.cornell.edu/**, which provides current, regional rainfall data that specifically accounts for current New York State climatology and increasingly extreme storms.

**Comment 55: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

Runoff from the proposed "U-District" adjacent to the Downtown site must be addressed as a cumulative impact.

**Response 55:**

See Responses 51 and 125.

**Comment 56: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

The Draft EIS fails to consider relocation of the Project to the St. Luke's Campus as mitigation. (a) The number of patient beds will be close to if not within those currently/historically on site, suggesting that the Project environmentally would be the replacement of an existing facility on site with no new impacts other than construction/demolition. (b) The wetland on-site is a natural flooding buffer. (c) The 7/1/17 storm caused no flooding at or near the St. Luke's Campus. (d) There are no pending large projects nearby that would cause cumulative impacts.

**Response 56:**

Given the critical medical services to be provided through the Project, it is designed to avoid flooding to the greatest extent practicable. Under these circumstances, relocation of the Project to the St. Luke's Campus is not warranted. See Responses 28 and 48.

### 3.6 GROUNDWATER

**Comment 57: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

Impact on Groundwater: This topic is addressed in Draft EIS Section 3.3. The presence of impacted groundwater from prior industrial uses is mentioned as a concern. The EIS needs to acknowledge that this concern could be mitigated by Relocation of the Project to the St. Luke's Campus, due to the lack of prior industrial uses there.

**Response 57**:

See Responses 28 and 48. Moreover, relocation is not necessary because the DEIS has demonstrated that any impacted groundwater from prior industrial use would be remediated in connection with the Project, thereby resulting in an environmental benefit.

## 3.7 AIR

**Comment 58: Frank Montecalvo, Attorney at Law, Letter, 12/26/18**:

Impact on Air: This topic is addressed by the Draft EIS in Section 3.4. Fugitive emissions from regulated materials and impacted soils is acknowledged as a potential concern during construction (Draft EIS p. 67/3527). Relocation of the Project to the St. Luke's Campus should be considered to mitigate this concern due to the lack of prior industrial uses at that location.

The Draft EIS acknowledges that the Project's road closures could increase emissions from mobile sources (p. 64/3527). Relocation of the Project to the St. Luke's Campus should be considered to mitigate this concern because road closures would be unnecessary at the St. Luke's Site.

**Response 58**:

As stated in DEIS Section 3.4, IHC operations will result in air emissions from boilers, emergency generators, and additional minor sources. In accordance with New York State regulations, the proposed emission sources are exempt from permitting (*i.e.*, exempt and trivial activities). In addition, the annual potential to emit (PTE) is below the Title V major source thresholds. Based on the expected air emission sources, it is likely that the proposed hospital will not require an air permit or registration. The IHC will still be required to meet the requisite air quality standards regardless of the need for permitting. Adherence to these standards will mitigate potential significant adverse impacts from operations. In addition, the new hospital will incorporate new equipment, which will meet current standards regarding performance and efficiencies.

In regard to the comments, the age of St. Luke's would suggest that the type and magnitude of impacts from Asbestos Containing Material (ACM) and Lead-Based Paint (LBP) resulting from the renovation or demolition of the facility would be substantially similar to those encountered at the downtown location.

Section 3.4 of the DEIS includes a description of measures to be implemented to mitigate impacts from fugitive and mobile emissions. In regard to fugitive emissions, the DEIS states the following:

> *Prior to the initiation of construction activities, a hazardous building materials survey will be conducted to identify the potential presence of hazardous materials such as ACM and LBP in buildings to be demolished. In addition, an additional environmental subsurface investigation will be conducted (including soil and groundwater sampling) to evaluate potential impacts from past or existing land use, if any, that would require special handling and disposal during construction activities. Samples will be analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), Target Analyte List (TAL) metals and total petroleum hydrocarbons (TPH). Soil sampling results will be compared to NYSDEC Part 375 Soil Cleanup Objectives (SCOs) for Unrestricted Use and for Restricted Commercial Use; groundwater sampling results will be compared to NYSDEC Division of Water Technical and Operational Guidance Series (TOGS 1.1.1) Ambient Water Quality Standards and Guidance Values for Class GA waters.*
>
> *Based on the data, wastes will be removed, stockpiled, handled, transported and disposed in accordance with applicable local, state and federal regulations. Waste management protocols (including reporting and manifesting) will be implemented in addition to E&SCs and dust suppression measures previously identified.*

In addition, the DEIS states that:

> *[ ]…the New York State Department of Labor's Code Rule 56 requires that all work that disturbs ACM be done by trained workers following special procedures and engineering controls (including air monitoring) to prevent the spread of asbestos into the air and ensure ACM has been properly removed.*

In regard to mobile source emissions, the DEIS stated that the Project Sponsor would be required to:

- Prepare and implement of a maintenance and protection of traffic plan in accordance with the Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways to minimize traffic delays and queued vehicle exhaust emissions during construction
- Coordinate with road jurisdictions to optimize signal timings at specific intersections to facilitate the adequate flow of traffic adjacent to the Project Site during operations.

See Responses 28 and 48 for the remainder of the comment that focuses on the St. Luke's Campus as an alternative for the Project as proposed. Moreover, relocation is not necessary because the DEIS has demonstrated that any impacted soil from prior industrial use would be managed in accordance with state regulations and ultimately remediated in connection with the Project, thereby resulting in an environmental benefit.

## 3.8 AESTHETIC RESOURCES

**Comment 59: Linda K. Paciello, Ph.D., Resident (New Hartford), Letter, 12/18/18:**

The lights from the hospital, parking lots, helipad, *etc*. will certainly create a large section of light. How will this affect the other residents of the area?

**Response 59:**

Site lighting already exists within and proximal to the Project Site and includes street and building (interior and exterior) to provide for general, accent, or task lighting considerations. Much of the existing exterior lighting fixtures predate current designs that promote energy efficiency and dark sky objectives. To mitigate light migration and glare, the DEIS (Section 3.5), indicated that the Project will be designed to conform with City Code requirements (City Code Section 2-29-387), which require the following:

- The illumination of off-street parking facilities shall be designed so that the light from lighting fixtures in such facilities does not reflect direct rays or spill over into adjacent residential districts. Lighting arrangements for all off-street parking facilities shall be approved by the City
- Lighting fixtures shall not be placed higher than 12 feet above the finished grade, except that in business districts the Planning Board may approve lighting fixtures of a greater height, but not exceeding 25 feet above the finished grade
- Fixtures shall be of the non-spill type, hooded/shielded with reflective cut-offs to reduce glare
- Candle power per fixture shall not exceed 3 foot-candles measured at grade level directly under the fixture.

Outdoor site lighting for the proposed IHC will consist of a combination of pole-mounted, bollard-mounted, or wall-mounted LED lighting. Lighting of the surface parking lots and access roadways will be accomplished using approximately 127-watt LED fixtures mounted on 25-foot high poles. The poles will be spaced appropriately to provide acceptable lighting levels, no greater than 3 foot-candles measured at grade directly under the fixture. The fixtures will be hooded to reduce glare, and direct light downward to the parking lot surface.

Walkways will be lit using both bollard and pole mounted LED light fixtures. Pole mounted walkway lighting will be approximately 66-watt fixtures on 12-foot poles, and bollard lighting will be 28-watt fixtures.

The helipad (and associated lighting) will be designed in accordance with FAA specifications (see Section 1.1.4 of this FEIS Responsiveness Summary; see also Responses 6, 10, 11 and 12.

To further minimize light or glare impacts, the following additional measures will be considered:

- Building design would use low-reflective glass and other materials, window recesses and overhangs, and façade modulation
- The number of reflective surfaces may be limited
- Landscaping, screens, and "green walls" may obstruct light from shining to off-site locations
- Nighttime illumination of the site and selected buildings may be restricted and provided only when function or safety requires it
- Interior lighting, if appropriate, would be equipped with automatic shut-off times. Automatic shades may be installed where lighting is required for emergency egress
- Parking lots and structures may include screens or landscaping to obstruct glare caused by vehicle headlights

Adherence to New York Building Code requirements for outdoor lighting, as well as the use of the mitigation measures described above should provide sufficient mitigation to eliminate potential significant adverse impacts related to aesthetics from light and glare. Specific information relative to stationary building fixtures and signage would be provided as part of the construction level plans associated with the City's Building Permit process.

**Comment 60: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

Impact on Aesthetic Resources including Lighting: This topic is addressed by the Draft EIS in Section 3.5. It acknowledges the types of buildings currently on the Downtown site, that they will be replaced with more modern looking structures, and that the new structures will be consistent with the appearance of the renovated Utica Aud and what is planned at Harbor Point. However, the determination of appropriate aesthetics at the Downtown site has been standardized by the Gateway Historic Canal District Design Standards adopted in 2005. Although the Applicant acknowledged the existence of these standards in its CON application (*i.e.*, noting a height limitation of 7 stories/70 feet on Draft EIS p. 373/3527), the Draft EIS failed to apply the standards. At 9 stories, the Project exceeds the acknowledged height standard making it an aesthetic impact requiring mitigation. This could be accomplished by:

1. Redesigning the Project to conform to Gateway Historic Canal District Design Standards

**Response 60:**

The Gateway Historic District-Form Based Code Overlay District is intended to foster a vibrant, safe, twenty-four-hour District that encourages a broad range of residential, commercial, office, institutional, public, cultural and entertainment uses and activities. The design standards define and promote the district as a desirable place to live, work and recreate. Virtually all uses, including hospital uses, are permitted within the Overlay District and new construction that follows the strict guidelines is approved without Planning Board review. Developments that do not meet the guidelines may still proceed if they follow the normal site plan review process by the Planning Board. Since the proposed Project does not follow the strict guidelines, site plan review by the Planning Board is required.

In fact, since the adoption of the Overlay District in 2002, there has only been one building constructed in accordance with the guidelines.

Regardless, this area has been targeted by the City of Utica for economic redevelopment for years rendering its development by MVHS consistent with the applicable City plans.

As noted in the comment, the DEIS, and in Figure 25 to Figure 27, the new structures will be consistent with the appearance of the renovated Utica AUD, NEXUS, and development at Harbor Point. See also Response 62.

**Figure 24. View of Proposed IHC From the Northeast (Source: NBBJ 2018)**

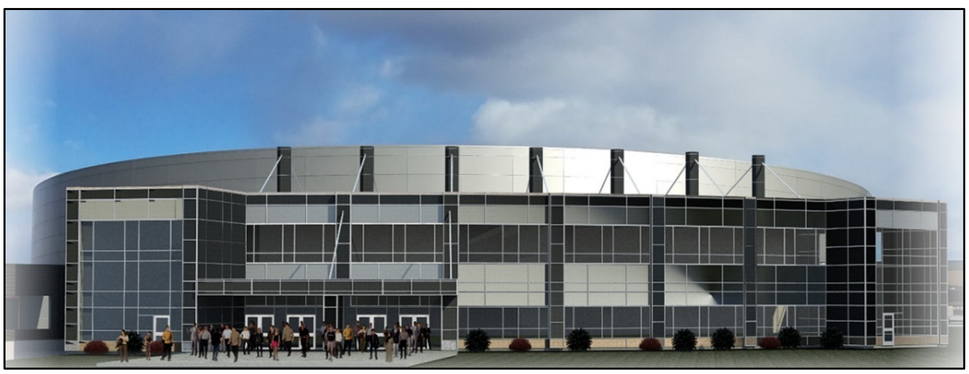

**Figure 25. Utica AUD (Source: Upper Mohawk Valley Memorial Auditorium Authority)**


**Figure 26. NEXUS (Source: Upper Mohawk Valley Memorial Auditorium Authority)**

**Comment 61: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

2. Relocating the Project to the St. Luke's Campus where the standards do not apply and the building form is consistent with what is already on-site.

**Response 61:**

See Responses 28, 48 and 60.

**Comment 62: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

Another short-coming of the Draft EIS is the failure of its artist renderings to show the Project in context with surrounding buildings from important vantage points. Utica has a distinctive and unique skyline perhaps best appreciated driving south on Route 12 Arterial or east on Oriskany Boulevard. The Arterial/Oriskany Boulevard interchange is an important Gateway to Downtown. Travelling east on Oriskany Blvd. as one emerges from under the interchange, the skyline of Utica is revealed, 'up close and personal' on the right with prominent architectural examples such as the Adirondack Bank Building, Grace Church, State Office Building, new Bank of Utica clocktower, City Hall's 'Tower of Hope,' and M&T Bank's "Gold Dome" alternately coming into view. These buildings are also viewable as one travels south on Rt. 12 over the interchange. From either vantage point, the Project's massive, lengthy, 9-story "slab," out-of-scale with the neighborhood and street-grid, and placed across Cornelia St., will block these views.[32]

**Response 62:**

The Commenter offers an opinion. As stated in the DEIS, the proposed action will replace the predominant 19th and 20th century architectural building styles, which currently characterize the Project footprint. While the IHC will replace these existing styles, the current design is consistent with recent City-approved and completed modifications to the AUD and Landmarc buildings, as well as styles proposed for the Utica Inner Harbor Redevelopment and NEXUS projects. Renderings were provided in the DEIS (Section 3.5). Furthermore, following consultation between DASNY, MVHS and the New York State Office of Parks, Recreation and Historic Preservation (OPRHP), also known as the State Historic Preservation Office (SHPO[33]), MVHS will incorporate several design and construction themes into the IHC design, which are elements of existing buildings within the downtown area. These include:

**Figure 27. View Along Lafayette Street (Source: Hammes Company, NBBJ, Dwyer Architectural, SSR (2018))**

- Romanesque Revival Style design (reflected in the Harberer Building and Jones Building)

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[32] The following Google Map® photographs were included with the Commenter's submission:

- Eastbound Oriskany Blvd emerging from interchange. (Commenter's note: This viewshed is better appreciated in-person from different points while driving, without Google Map's distorted perspective.)
- Southbound Rt 12 passing over interchange. (Commenter's note: This viewshed is better appreciated in-person from different points while driving, without Google Map's distorted perspective.)

The photographs are included with the Commenter's original correspondence, which is included in Appendix B to this FEIS Responsiveness Summary.

[33] OPRHP and SHPO are used interchangeably throughout this document.

- (German) Romanesque Style design (reflected in the Utica Turn Hall / Turnverein Building)
- Corner Pallisters with corbelled brick cornice (Utica & Mohawk Valley Railway Car Barn)
- Brick Cornices (Child Building)

It is MVHS's intent to review these key architectural details as the design progresses to take advantage of any opportunity to incorporate them.

In addition, as stated in the DEIS (Section 3.5), the architectural design, as an acknowledgement to the city's building history, incorporates brick construction in the first two floors of the new hospital (see Figure 28). In SHPO's matrix of buildings, all the identified historically meaningful buildings were also of brick construction. MVHS has indicated that this meaningful design element will be part of the new hospital's design and an opportunity for the new hospital to pull from the history of downtown Utica into present day while maintaining the City's deep roots in industrial and commercial construction.

### 3.9 HISTORIC AND ARCHAEOLOGICAL RESOURCES

**Comment 63: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

Impact on Historic and Archeological Resources: This topic is addressed by the Draft EIS in Section 3.6 as well as in Appendices E and H. The Draft EIS acknowledges and extensively documents the existence of sites of Historic or Archeological significance within the Downtown site which may be disturbed/destroyed/adversely affected by the Project, including sites on the National Registry, sites eligible for the National Registry, sites listed in the Downtown Genesee St. Historic District, and sites related to operation of the Erie/Chenango Canals. The Draft EIS postpones definition of mitigation measures pending further study, consultation with, and action by OPRHP to prescribe measures to mitigate impacts to known and unknown historic properties; but anticipates such measures to include further assessments/testing of properties, *etc*. (which might be characterized as documenting what is there and saving some artifacts before structures are destroyed). The Draft EIS needs to acknowledge that impacts to Historic and Archeological Resources may be avoided by relocating the Project to the St. Luke's Campus.

**Response 63:**

The OPRHP administers programs authorized by both the National Historic Preservation Act (NHPA) of 1966 and the New York State Historic Preservation Act (SHPA) of 1980. Under Section 106 of the NHPA and Section 14.09 of the New York SHPA, state agencies which undertake activities affecting historic properties, including those properties which have been determined to be eligible for listing on the State or National Registers, must consult with OPRHP when any aspect of the proposed undertaking may or will cause any change, beneficial or adverse, in the quality of any eligible or registered property in the Project impact area. OPRHP's role in the review process is to ensure that effects or impacts on eligible or listed properties are considered and avoided or mitigated during the Project planning process. If OPRHP finds an adverse impact, there are three possible outcomes:

- If OPRHP and the undertaking agency agree on a course of action it should be set forth in the Letter of Resolution (LOR) and at the conclusion of the undertaking the agency must certify in writing that the undertaking was completed in accordance with the LOR.
- If the undertaking agency determines that there are no feasible and prudent alternatives, but determines it is in the public interest to proceed, it may unilaterally terminate the consultation process by providing written notice to OPRHP of this conclusion and its supporting reasons.
- If the undertaking agency and OPRHP both agree that there are no alternatives, but that it is in the public interest to proceed and make a joint written declaration to this effect.

NYSDOH and DASNY have the obligation to consult with OPRHP prior to release of the grant funds for the IHC. As a result, DASNY required MVHS, as the Project Sponsor, to engage in the consultation process with OPRHP early in the planning process. MVHS made an initial submission to OPRHP's Cultural Resource Information System (CRIS) in September 2016. The ensuing process, which included multiple points of coordination and consultation between DASNY, OPRHP and MVHS, was previously outlined in the DEIS (Section 3.6).

Based on that consultation and in support of the impact evaluation process, two cultural resource investigations were performed by MVHS to identify the potential presence and/or likelihood of historic and archaeological resources within the Project footprint. Those evaluations, which included a Phase 1A Cultural Resource Investigation and an Architectural Inventory, were summarized in and appended to the DEIS (Appendix E).

Based on OPRHP's review of those investigations, it was concluded by OPRHP that the Project could impact resources listed or eligible for listing on the National Register of Historic Places, as well as areas with known or suspected sensitivity to the presence of archaeological resources. Those resources were clearly defined in SHPO's correspondence, which was also appended to the DEIS (Appendix E).

Consistent with SEQRA, the consultation process, regardless of site control, resulted in an identification of baseline conditions and potential Project-related impacts on those existing cultural resources. Throughout the consultation process, MHVS has been clear in its intentions that, consistent with the need to meet its Project objectives, the Project may require demolition of existing buildings within the Project footprint – that is the magnitude of the impact, which was identified and assessed in the DEIS.

In accordance with SHPA, to mitigate these impacts, MVHS has signed a LOR with OPRHP and DASNY. A copy of the LOR is appended to this FEIS Responsiveness Summary (Appendix C). The LOR states that if reasonable and prudent alternatives that might avoid direct and indirect impacts to identified and yet to be identified resources cannot be found, that appropriate mitigation measures/stipulations will be implemented to offset any loss to historic resources. These agreed upon measures consist of:

<u>BUILDINGS</u>

- As soon as practicable, the Applicant (MVHS) will commence a complete assessment of buildings it currently controls that are listed in Appendix A (of the LOR) and proposed for removal.
- Upon site control of the remaining buildings, the Applicant will commence a complete assessment of the remaining buildings listed in Appendix A (of the LOR).
- This assessment will include photographs of exterior and interior conditions. Sufficient (10 to 20) images should be prepared to provide the OPRHP with a general understanding of the state of the resource. These images, along with a written assessment of the general condition of the building, will be submitted to OPRHP via the CRIS program.

<u>ARCHAEOLOGY</u>

- Archaeological testing, as previously requested by SHPO in their letter to O'Brien & Gere dated June 18, 2018 (see DEIS Appendix E), will commence once the Applicant obtains site control. Reports associated with the testing must be filed in a timely manner and must meet NYS Archaeological Standards.
- No ground disturbing activities in the Project Impact Area (PIA) will commence until all archaeological testing has been completed at each identified site and the results of the testing have been reviewed by SHPO. Notwithstanding the above, the parties acknowledge and agree that MVHS will be allowed to perform certain environmental testing and engineering surveys (borings) as needed on properties MVHS or the City of Utica control within the PIA.
- Unanticipated discoveries, including the discovery of human remains during construction, will follow the protocol outlined in Appendix C (of the LOR).

TREATMENT MEASURES (BUILDINGS)

In accordance with Section 14.09 of the SHPA, efforts that would avoid or minimize impacts to historic buildings should be explored and documented. An alternatives analysis relating to the disposition of historic buildings in the PIA must be submitted to SHPO for review and comment prior to any activity on the site that might damage the resources. This analysis should explore the following opportunities:

- The parties expressly agree that buildings located within the footprint of the hospital building and parking garage structure will not be retained. If appropriate and agreed upon, salvageable, architecturally significant features of the removed buildings (*i.e.*, building name panels, significant intact architectural elements, *etc.*) will be incorporated into the new structure or hospital site.
- Avoidance: To the extent practicable, efforts to avoid the removal or direct impacts to buildings identified as historic (Appendix A of the LOR) and located outside of the footprint of the Hospital and Parking Garage will be explored. Documentation outlining this exploration of alternatives will be provided to SHPO prior to any action that would directly impact the involved resource(s).
- Minimization: If practicable, efforts that would include options to lessen the overall, as of yet to be fully documented, impacts to historic resources located outside of the hospital building and parking structure footprints will need to be explored. This assessment should include a discussion of the potential retention of some of the historic resources as part of the development planning and mitigation.
- Mitigation Options: Where it has been determined by the parties that some or all of the historic resources must be removed from the PIA, the following mitigation measures may be applied:
    1. Exploration of the potential reuse of existing structures located outside of the hospital building and parking structure's footprints, deemed retainable and adaptable for a productive hospital-associated use, provided sufficient resources to complete the Project remain.
    2. Where buildings cannot be retained the Applicant will follow SHPO's standard resource documentation process outlined in Appendix B (of the LOR).
    3. Other appropriate mitigation for the loss of historic resources as agreed to by the parties (*e.g.*, reuse of building name panels, significant intact architectural elements, *etc.*) will be incorporated into the new structure or hospital site creating historic linkage and homage to the history of this portion of the City of Utica.

Activities accomplished in accordance with the LOR will be considered in compliance with Section 14.09 of the New York State Parks, Recreation and Historic Preservation Law. "Nothing in SEQRA bars an agency [which has the ultimate decision-making authority] from relying upon information or advice received from others, including consultants or other agencies, provided that the reliance was reasonable under the circumstances." See *Jackson, 67 N.Y.2d at 427*. In fact, courts look favorably on agency consultation with SHPO when reviewing whether the agency took a hard look at impacts on historic resources. See *Jackson v. N.Y. State Urban Dev. Corp., 67 N.Y.2d 400, 427 (1986).*

It is not required that the mitigation proposed by the LOR be undertaken prior to the completion of the SEQRA review because SEQRA prohibits the issuance of any permits or approvals prior to its completion. Thus, it is sufficient that the LOR specify the appropriate mitigation measures to be undertaken once the Project receives the necessary approvals. In regards to relocating the Project to St. Luke's to mitigate Project-related impacts on cultural resources, see Responses 28, 48 and 67.

**Comment 64: Steven Grant, President, LSGU, Letter, 12/27/18:**

The current US Secretary of the Interior guidelines discourage demolition only as a last resort after all other options have been exhausted. Since the St. Luke's campus is a viable 2nd site, as determined by MVHS, another option to explore exists.

[In addition to 2 National Register of Historic Places (NRHP) listed properties and 9 NRHP eligible properties], three properties are also in the expanded NRHP listed Downtown Genesee Street Historic District which represents an obstacle to removal as demolition in the district is also restricted. NYSHPO requires investigation and documentation of the above mentioned historically and culturally significant properties, which in many cases has not yet commenced and is required as part of the SEQRA process.

The NRHP eligible St. Elizabeth campus, which MVHS is proposing to repurpose, is located in Utica's Scenic & Historic Preservation District and subject to review/approval of any exterior alterations or proposed demolition.

**Response 64:**

See Responses 9, 28 and 63. The remainder of the comment is noted. MVHS is not proposing to demolish the SEMC (see Response 177).

**Comment 65: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18:**

The DEIS is woefully incomplete and, indeed, fatally defective relative to evaluation of adverse impacts to historical and archaeological resources. The DEIS documents that, pursuant to article 14 of the New York State Parks, Recreation and Historic Preservation Law ("PRHPL"): (1) consultation with the OPRHP (SHPO) is in progress, but has not concluded; (2) more investigation is necessary (including subsurface testing); and (3) no letter of resolution has yet been obtained. *See generally,* DEIS, Section 3.6 and Appendix E (correspondence from SHPO, dated June 18, 2018, and July 17, 2018; correspondence from O'Brien & Gere, dated August 16, 2018).

The DEIS also documents that the Applicant is attempting to bypass SEQRA's requirement that practicable avoidance and mitigation measures be evaluated in a *public* forum (subject to public scrutiny and opportunity for comment) *prior* to decision-making. *See* [DEIS] Appendix E, Letter from O'Brien & Gere, dated August 16, 2018.

**Response 65:**

See Responses 63 and 67.

**Comment 66: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18:**

More specifically, a Phase IA archaeological investigation was completed for the Project area, resulting in a finding that the Downtown Site is sensitive for pre-contact archaeological sites and a variety of historic archaeological resources, including a historic site (442 Lafayette Street). A Phase IA architectural survey of existing buildings within the Downtown Site was also conducted, resulting in a finding of 49 architectural resources, including a portion of the Downtown Genesee Street Historic District (which is listed in the State and National Register of Historic Places), three contributing buildings to that historic district, and ten other buildings eligible for inclusion in the State and National Registers. See generally, DEIS Section 3.6 & Appendix E.

By letter dated June 18, 2018, SHPO informed the Applicant that a Phase II Site Examination would be required for the 442 Lafayette Street Historic Site, and Phase IB subsurface testing would be required on certain specified locations. By letter dated July 17, 2018, SHPO did three things: SHPO (1) reserved its right to comment further on archaeological issues upon completion of the required Phase II and Phase IB testing; (2) determined that, based on the planned demolition of at least two contributing buildings within the historic district and ten eligible historic resources, "the project as designed will have an Adverse Impact on historic resources;" and (3) directed an assessment of alternatives to avoid or lessen impacts regarding building demolition (*e.g.*, save structures in place or move buildings for adaptive re-use). See [DEIS] Appendix E (SHPO Letter, dated June 18, 2018).

In response, rather than performing the SHPO-directed testing, or addressing SHPO's mitigation recommendations, or developing an avoidance/mitigation plan as part of the SEQRA process, the Applicant sought a letter of resolution from SHPO, requesting that mitigation measures be developed after-the-fact. Appendix E (O'Brien & Gere Letter, dated August 16, 2018); see also DEIS, Section 3.6.3. The DEIS hypothesizes as to what the so-called after-the-fact "mitigation" measures ultimately might be – for example, providing SHPO with photographs of the historically significant buildings to be demolished, performing archaeological testing at some future date after the SEQRA process has terminated, and coming to terms on undisclosed/yet-to-be determined "treatment measures" (*i.e.*, to be developed after termination of the SEQRA process and after deciding to utilize the Downtown Site for this Project). See DEIS, Section 3.6.3.

In support of this request, the Applicant cites the alleged inability to gain full Project Site access (*i.e.*, because the Applicant does not own/control all of the affected properties) and the alleged need to achieve a balance between historic resource preservation and providing health care. DEIS, Appendix E (Letter from O'Brien & Gere, dated August 16, 2018). Of course, not a scintilla of legal authority supports the proposition that health care supersedes the procedural and substantive requirements of SEQRA; nor is there any legal support for the Applicant's intimation that health care concerns (even if they were valid here, which they are not) trump the State's long-settled policies, statutory directives and regulations directing agencies to, among other things, mitigate adverse impacts to listed and eligible historic properties to the fullest extent practicable. See, *e.g.*, PRHPL § 14.09(1), (2); 9 NYCRR Part 428.8.

**<u>Response 66</u>:**

See Responses 63 and 67, as well as the approved LOR (Appendix C to this FEIS Responsiveness Summary).

**<u>Comment 67: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18</u>:**

The Applicant's attempt to bypass the heart of SEQRA - which mandates evaluation of impacts *and* mitigation in a public process *prior* to decision-making - is unlawful, both procedurally and substantively. Further, neither of the Applicant 's asserted reasons for attempting to side-step SEQRA's impact/mitigation evaluation requirement has any merit.

**<u>Response 67</u>:**

This comment represents a fundamental misunderstanding of the SEQR process. It is expected that the Lead Agency may consult with other Involved or Interested Agencies during the environmental review process. This is especially true when an Involved or Interested Agency possesses unique expertise related to a study or analysis that was required as part of the EIS. Here, impacts to historic resources were identified as a potential significant environmental impact requiring further study in the EIS. In connection with the study and evaluation of those impacts to historic resources, the applicant, together with DASNY, commenced consultation with OPRHP pursuant to the requirements of the State Historic Preservation Law (implementing regulations are 9 NYCRR Parts 426–428). See Response 63.

"Nothing in SEQRA bars an agency [which has the ultimate decision-making authority] from relying upon information or advice received from others, including consultants or other agencies, provided that the reliance was reasonable under the circumstances." See *Jackson v. N.Y. State Urban Dev. Corp., 67 N.Y.2d 400, 427 (1986)* (finding the Lead Agency's reliance on a letter from SHPO did not violate the Lead Agency's obligation to make its own independent judgment of the EIS). In fact, NYSDEC tends to defer to the determinations of the OPRHP concerning the historic significance of buildings and sites. Courts have looked favorably on Lead Agency consultation with SHPO when reviewing whether the agency took a hard look at impacts on historic resources. A court also looked favorably, however, at a determination regarding impacts on historic resources that considered not only OPRHP's findings but also the statements of the applicants' expert.

Accordingly, completion of the consultation process as part of the SEQRA process and prior to the issuance of the FEIS and the Findings Statement comports with the purpose and intent of SEQRA. Such consultation was completed during the public process in response to public and agency concerns about the impact of the Project on historic resources. Consultation and the subsequent agreement with SHPO was undertaken by the Project Sponsor to mitigate the concerns identified by the public and the reviewing agencies. This process comports with the overriding purposes of SEQRA.

Now, where an FEIS has investigated potential adverse impacts to archeological and historic resources, the Lead Agency must address those potential adverse impacts when developing its SEQR findings. Specifically, the Lead Agency must articulate how those impacts have been avoided or mitigated to the maximum extent practicable, when weighed and balanced with social, economic and other considerations. The Planning Board, as the Lead Agency, may attach conditions to its final decision, where appropriate, to ensure that the identified mitigation is implemented. The agreement reached with OPRHP can properly be considered by the Planning Board in making its findings and the Planning Board can require compliance with the agreement as part of its Findings Statement.

**Comment 68: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18:**

First, SEQRA requires meaningful evaluation of environmental impacts and mitigation in the DEIS, as part of the public review process; and historical, archeological, architectural and aesthetic resources are expressly considered part of the environment and are protected under SEQRA. See ECL 8-0105(6), ECL 8-0109(1), (2), (8); 6 NYCRR 617.7(c)(1)(v); 6 NYCRR 617.9(b)(5)(iii), (iv); see also Orchards Assocs. v. Planning Bd. of Town of N Salem, 114 A.D.2d 850 (2d Dep’t 1985). Given that the DEIS, itself, acknowledges that it does not contain the data necessary for full evaluation of impacts to historic/archaeological resources and mitigation as to same, the DEIS is fatally defective on its face, both procedurally and substantively. Accordingly, due to this material inadequacy, the SEQRA process should be immediately suspended and a supplemental EIS required that complies with the full procedures of the governing Part 617 regulations. *See* 6 NYCRR 617.9(a)(7)(i) & (iii).

**Response 68:**

The DEIS is not fatally defective because MVHS did not have access to the sites for purposes of undertaking further review of historic impacts. In fact, MVHS was able to submit an expert report that analyzed each building and considered the impact of the Project on each building. This report was sent to OPRHP and was attached to the DEIS (Appendix E). This report formed the basis for the LOR reached between OPRHP, DASNY and MVHS. There is no expert information in the comments that contradicts this report or the LOR and suspension of the environmental review process is not necessary. See Responses 63 and 67.

**Comment 69: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18:**

The Applicant's rationale for seeking to bypass meaningful public evaluation of impacts to, and mitigation regarding, historical/archaeological resources is fundamentally flawed. Unavailing is the Applicant's assertion that it should get a free pass as to data collection necessary for impact assessment (*i.e.*, the Phase II and Phase IB studies directed by SHPO) until after conclusion of the SEQRA process because of the alleged inability to obtain full site access now. The Applicant claims that it has the power of eminent domain. Assuming, without deciding if that is true, then the Applicant may avail itself of Eminent Domain Procedures Law § 404. Section 404 accords the condemnor the right of entry prior to acquisition (upon proper notice) in order to prepare studies necessary as a prerequisite to the condemnation process. In other words, the Applicant's site access excuse is utterly meritless. Moreover, to the extent the Applicant does not have eminent domain power, that merely highlights that its selection of the Downtown Site is fatally defective and that the Applicant should instead be pursuing the Applicant-owned St. Luke Campus (which has been found to be a feasible alternative site for the IHC). In other words, if the Applicant does not have the power to use Section 404 of the Eminent Domain Procedures Law, then the Downtown Site is fatally defective, because information cannot be gathered that is necessary to complete the SEQRA process.

**Response 69**:

See Responses 63, 67 and 68.

Moreover, MVHS does not have the power to use *eminent domain* and it has never stated as such. The DEIS is clear that to the extent MVHS cannot acquire property through voluntary negotiations that it would ask the County and the City URA to acquire property using *eminent domain*. That does not render the Downtown Site fatally defective. See Responses 28, 29 and 32.

### 3.10 TRANSPORTATION

**Comment 70: Dan Broedel, Program Director, Midstate Regional Emergency Medical Services Council, Public Hearing, 12/6/18:**

I was particularly interested in how traffic would be impacted with the addition of the new hospital downtown I feel the study fully addressed the impact of the project that the project would have on traffic, as well as the mitigation measures that would be implemented.

**Response 70**:

The comment is noted.

**Comment 71: Frank Przybycien, Genesis Group, Public Hearing, 12/6/18**:

One of the things that we would like to suggest very strongly is make it pedestrian friendly and to make the connectivity of the two parking garages with the new medical center better than anything we've seen in the past in the downtown area. It should be a four-season connection. It should be a safe connection, well lit. It should also be designed for future transportation methods, because we all know there will be self-driving vehicles and self-driving everything, and make sure that there are no curb cuts and we have a clear path between the two parking garages, Kennedy and new one for the medical center.

**Response 71**:

Pedestrian safety to and from parking garages into the hospital has been considered by the design team. The connection from the new garage to the hospital will be within the campus and in a pedestrian-only area. Crossing from the Kennedy Garage (and the Washington Street garage and perimeter surface lots) will require crossing the street at the nearest intersection. A pedestrian bridge will also be constructed over Columbia Street from the hospital's 2nd floor to the CUP's 2nd floor in the Kennedy Garage.

Pedestrian facilities at these intersections will be improved, as needed, as part of this Project. MVHS will keep sidewalks within the IHC free from obstruction by snow or ice in accordance with City of Utica Code 2-22-12.

With regard to campus and parking lot lighting, see Response 59.

**Comment 72: Frank Przybycien, Genesis Group, Public Hearing, 12/6/18**:

The one thing that I think is very important is in the near future, the north-south Arterial is the main road to get to the new medical center and it has two stoplights on it, Noyes and Oriskany that at times the traffic backs up significantly, and that's also a problem for the existing hospitals. This area that we're talking about does not have a shoulder, so it will impede the speed of any emergency vehicles, and I think addressing the elimination of those traffic signals and a redesign of that area is very important for both this project and all the projects in downtown.

**Response 72**:

As the Commenter points out, the North-South Arterial includes two stop lights, one at Noyes Street and the other at Oswego Street (not Oriskany Street). Even with these intersections, the North-South Arterial (NY State

Routes 5, 8, and 12 through Utica) is classified by NYSDOT as a "Primary Arterial Expressway." The only other highway with this functional classification, within the City limits, is NYS Route 5S from the eastern City line to the Broad Street intersection. The Functional Class designation is "critical in assigning priorities to projects and establishing the appropriate highway design standards to meet the needs of the traffic served" (NYSDOT). Therefore, these intersections will be addressed by NYSDOT, as part of their capital program, at some point in the future in balance with their other priorities in the region. The Oneida County Vision 2020 Connectivity Committee is considering recommending that a project to eliminate the traffic signals along the North-South Arterial (at Noyes and Oswego Streets) be included in the Long-Range Transportation Plan prepared by Herkimer-Oneida Counties Transportation Study (HOCTS), the local Metropolitan Planning Organization, which has influence on the priority of these types of transportation improvements.

In regard to emergency responders, the IHC is located directly off both primary arterials in Utica, the North-South Arterial (NYS Routes 5, 8, and 12) and East-West Arterial (NYS Route 5S and 5A). These arterials have the highest NYSDOT functional classification ratings within the City, and offer the fastest, most direct routes to the campus. Under high traffic conditions, the City street grid provides multiple secondary options.

**Comment 73: Shawn Corrigan, Owner, Wilcor International, Public Hearing, 12/6/18:**

[ ]…downtown Utica will never be finished for a fully walkable downtown.

**Response 73:**

See Response 86.

**Comment 74: Linda K. Paciello, Ph.D., Resident (New Hartford), Letter, 12/18/18:**

With this new proposed plan, there will be streets that will be cut up and streets lost to the public. It is difficult to navigate that area of the city now and this will certainly impede it more.

Parking will be difficult. It is difficult now to find a parking space and I think this difficulty will only increase.

This new hospital will be landlocked. What will happen [for parking] when more space is needed? More eminent domain?

**Response 74:**

Lafayette Street will be closed to vehicular traffic between State Street and Cornelia Street and Cornelia Street will be closed between Columbia Street and Lafayette Street. A revised analysis was conducted with a more detailed redistribution of local traffic due to the closures of these two roadways. The Traffic Impact Study Addendum, which is included as Appendix D to this FEIS Responsiveness Summary, includes additional analysis relevant to the proposed roadway closures and concludes that with traffic rerouting to other roadways in the area, there will be no significant impact on traffic operations in the study area after implementation of the recommended mitigation measures.

In regard to the parking comment, the Downtown location is no more "landlocked" than the St. Luke's location (see Response 7). Both locations have neighboring property owners. As indicated in the DEIS, parking demand for the hospital will be accommodated by the off-street facilities proposed within the Project footprint. This Project has been designed to serve the areas long-term needs and any need for additional parking is purely speculative.

**Comment 75: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

Impact to Transportation: This topic is addressed by the Draft EIS in Section 3.7. It acknowledges various potential construction and operational traffic impacts, describes current streets, presents current and anticipated traffic Levels of Service (LOS) for various intersections, and proposes forms of mitigation.

As detailed in the Draft EIS (pp 90-91/3527) the Project will cause a deterioration in LOS for several intersections (*i.e.*, the Project will cause unacceptable traffic delays at certain intersections for certain movements according to the ratings). Although changes to signals etc. are proposed as mitigation, no evidence is presented to demonstrate that these will decrease the delays or otherwise improve LOS. Therefore, there is an unavoidable adverse impact to traffic.

**Response 75:**

Section 4.7 of DEIS Appendix F (Traffic Impact Study, TIS) and the revised analysis in the TIS Addendum (Appendix D to this FEIS Responsiveness Summary) shows how the LOS and delays will be maintained or improved with implementation of proposed mitigation measures.

**Comment 76: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

What the traffic analysis methodology, and the minutiae it generated, failed to capture – and what the EIS must acknowledge – is the broader concept of a Street Grid – that the Project will destroy a portion of the Grid, and that this could have unintended and unpredictable social, economic, health and environmental consequences.

**Response 76:**

Reconstruction of the City street grid for ingress and egress to the proposed IHC is not necessary. The Project is requesting that certain City streets be abandoned to support the proposed Project, and once abandoned, the City will no longer carry any financial obligations with respect to those streets. Rather MVHS will complete any modifications to the street grid required for ingress and egress to the IHC Campus.

While the proposed Project does close two sections of two different roadways, this is a very small percentage of the entire City street grid. Moreover, there are available alternative routes on the remaining street grid. The TIS (DEIS Appendix F) and TIS Addendum (Appendix D to this FEIS Responsiveness Summary) does address the redistribution of typical peak hour traffic to other roadways/intersections.

**Comment 77: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

Temporary blockages due to deliveries, stalled trucks, fires, burst water mains, cultural and sporting events, etc., are a common fact of City life. They are unpredictable and not accounted for in the traffic studies. What is predictable is that the Project's street closures will make it more difficult for people, and City authorities, to deal with them. The EIS must acknowledge that the Project's street closures will turn what are now minor inconveniences into potential gridlock. Disruption of the street grid is, per se, an unmitigatable adverse impact to transportation.

**Response 77:**

The TIS does not evaluate all varieties of potential temporary traffic situations (*e.g.*, if a roadway is temporarily closed or blocked). SEQRA does not require that every conceivable impact be considered; just those that are reasonably related potential impacts. In fact, per the SEQRA Handbook, unpredictable impacts may be ignored. Impacts caused by temporary traffic situations would be unpredictable.

Safe and adequate flow of traffic during temporary events (*e.g.*, construction) is, as outlined in the DEIS, mitigated through the implementation of a maintenance and protection of traffic plan, which will be coordinated with roadway jurisdictions.

While the Project does close two sections of two different roadways, there are alternative routes for each available and the TIS does address the redistribution of typical peak hour traffic to other roadways/intersections. The City street grid will continue to exist.

**Comment 78: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

The Draft EIS fails to address the Cumulative Impacts of the Project with the NYSDOT's Route 5S work. After the State closes the Washington and Seneca Sts. crossings of Oriskany Blvd., and the Project closes Cornelia, how would one access Baggs Sq. W from Court St. if Broadway were to become temporarily blocked?

**Response 78:**

See Response 77 with respect to temporary street blockages.

The TIS does account for the NYSDOT Route 5S project and its changes to the traffic pattern at Washington and Seneca Streets.

**Comment 79: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

The Parking demand appears overstated and the ITE methodology not explained, not readily available to the public, and likely misapplied given gross differences between the Project and hospitals elsewhere, cited during Scoping (Draft EIS pp1032-3/3527). How does the proposed parking compare with Applicant's current use (which should be conservative given scale-back in Applicant's operations)?

**Response 79:**

See Section 1.1.4 of this FEIS Responsiveness Summary. Detailed information regarding the ITE Parking Generation information relied upon in the evaluation is provided in Appendix E of the TIS (Appendix F of the DEIS). The parking supply and demand estimates are based on similar facilities in urban settings. As Table 4.2 (DEIS Appendix F) shows, the Project is only providing a surplus of 15 spaces for the hospital and 92 spaces for the MOB for an overall surplus of 107 spaces during peak periods. As noted in the TIS Addendum (Appendix D to this FEIS Responsiveness Summary), the two current facilities provide approximately 2,800 spaces. The new hospital facility is providing 1,455± spaces. Therefore, the new facility is reducing the spaces per employee; accommodating the anticipated demand without providing a surplus of unnecessary spaces.

Proposed surface parking space needs have been reduced from 1,100± spaces (DEIS) to 780± spaces. The reduction includes the elimination of a proposed surface parking lot originally proposed at the site of the existing Police Maintenance Facility (see Figure 3 of this FEIS Responsiveness Summary). These parking facilities will be available for use by patients, visitors, staff, and volunteers, with the garage spaces being available for hospital-related parking, as well as to the community for non-hospital related events.

**Comment 80: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

The EIS must recognize that the traffic impacts identified above would be avoided by Relocating the Project to the St. Luke's Campus where (a) the negligible increase in bed-capacity on site would produce a negligible increases [sic] in traffic and parking demand (b) no public street would have to be closed and (c) there is nothing pending to suggest a Cumulative Impact to traffic.

**Response 80:**

The comment focuses on the St. Luke's Campus as an alternative for the Project as proposed, and an analysis of that potential site was conducted as part of the site study. However, utilizing the St. Luke's Campus as the Project Site would not achieve the Project's goals and would entail significant additional costs to upgrade as detailed above (Response 28 and 48). Moreover, constructing a new facility on the St. Luke's campus would result in similar parking demand issues, site accessibility issues for emergency vehicles, and would result in similar modifications to traffic patterns and ingress and egress.

**Comment 81: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

The Draft EIS makes clear that placement of the Project Downtown places it in a traffic area where delays will be exacerbated by the Project's own traffic and street closures. Additionally, because the streets to be closed are part of a grid, common blockages which now cause inconvenience could post-Project cause gridlock, making hospital access difficult and life threatening.

**Response 81:**

The DEIS (Section 3.7) identifies potential Project-related impacts and mitigation to reduce or eliminate potential adverse impacts. The analysis is based on a Traffic Impact Study (TIS) (DEIS Appendix F), which provided a detailed analysis of existing and future conditions. An addendum to the TIS is provided as Appendix D to this FEIS Responsiveness Summary. The addendum identifies Project-related mitigation to maintain the adequate flow of traffic during hospital operations.

**Comment 82: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

The Project's street closures are inconsistent with Utica's Street Plan, compiled incrementally over Utica's history by City ordinances.

**Response 82:**

See Responses 76 and 81.

**Comment 83: Michael Galime, City of Utica Council President, Letter, 12/27/18:**

The City of Utica has no formal financial plan to reconstruct the City street grid for ingress and egress to the proposed campus.

**Response 83:**

See Response 76.

**Comment 84: Michael Galime, City of Utica Council President, Letter, 12/27/18:**

The City of Utica is becoming more congested as the municipal center grows. There is more potential for access issues in an urban center. In 2017, Route 12 was closed due to accidents and weather events multiple times, causing Genesee St and Route 5 to become gridlocked. The potential impact of locating our proposed single emergency care facility in this situation must be considered.

**Response 84:**

See Response 72.

**Comment 85: Tyler Kuty, College Student & Resident (New Hartford), Email, 12/27/18:**

The current proposal includes closing Lafayette Street from Broadway to St. Marienne [sic] Way. The reason to close Lafayette from Broadway to State St. is understandable as MVHS does not want vehicles driving through the main entryway, however, there does not appear to be a reason to close Lafayette from State St. to St. Marienne Way other than an attempt to encourage use of the far parking lots. NBBJ and the City of Utica should reconsider closing this block as it both blocks another pathway to get from West Utica to Downtown and the hospital, but more importantly, it limits the possibility of future development along Lafayette Street both east and west of Route 12.

**Response 85:**

To clarify, the Project Sponsor, MVHS, has proposed maintaining Lafayette Street west of State Street. This plan was illustrated on Figure 3 of the DEIS. Lafayette Street from State Street to St. Marianne Way and ultimately Whitesboro Street will be maintained as a City Street (vehicular and pedestrian thoroughfare).

**Comment 86: Joseph P. Caruso, City of Utica Planning Board, Email, 12/27/18:**

**Creating a more Walkable Utica/Downtown:** While I appreciate the planning process for the hospital *building* itself ("*from the inside-out*", the building taking shape according to the needs of the individual departments within), The *campus* plan for the hospital as presented lacks street level tenants/amenities sufficient to create a more walkable Utica/Downtown. Specifically, the **Columbia/Lafayette east/west corridor** of the proposed hospital campus, linking Genesee Street and West Utica – and more specifically, the two blocks between Broadway and State Street - are not sufficiently "walkable" as there is little or no walker experience/interaction along the way.

**Response 86:**

As illustrated on Figure 28, the Project is located in an area, which is within a 5-minute walk of the City's urban center and other points of interest.

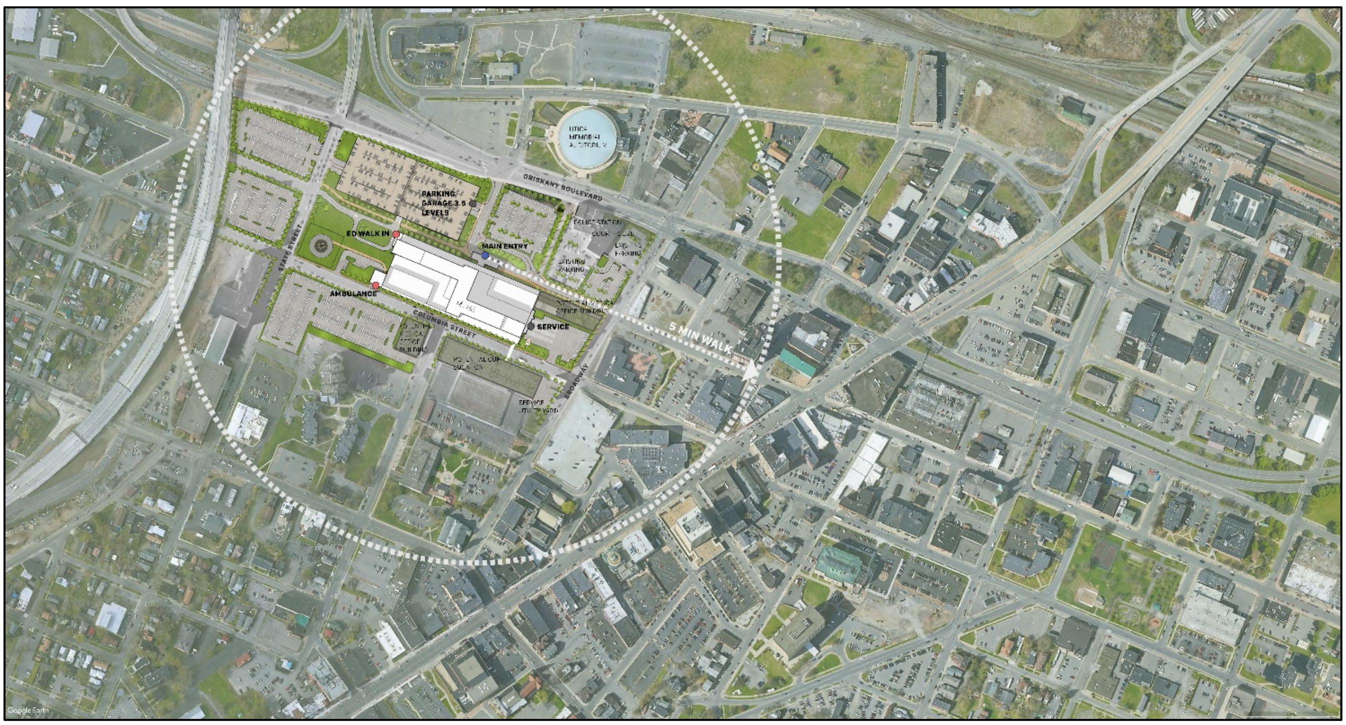


**Figure 28. Five Minute Walking Radius.**

The IHC facility will have a positive impact on the character of the community tying in to revitalization efforts occurring at the AUD, proposed NEXUS Center, Harbor Point, Bagg's Square, and the Brewery District to name a few. Proposed improvements include sidewalks, signage and a pedestrian walkway. The IHC will facilitate a safe and walkable connection between the AUD, NEXUS Center, Brewery District and the City's urban core.

The campus, itself, will be designed as an urban park with enhanced lighting, trees, pedestrian walkways and seating areas. The orientation of the hospital, aligned west to east along the long block of Columbia Street, respects the former Lafayette Street as a pedestrian corridor with access to the downtown Utica urban street network, incorporates walkability elements and green space through the campus, and maintains Pine Street as a pedestrian connection to the Rayhill trail[34]. This walkway will extend from the main entrance to the west, terminating at State Street. An additional segment of the walkway will provide access to the Emergency

[34] https://www.cnyhiking.com/RayhillMemorialTrail.htm

Department (ED) entrance. Outdoor areas will include gardens and other design considerations to create a healing, walkable environment.

The ground level clinical program for the hospital includes public lobby space along Lafayette Street; modern healthcare design concepts are focused on the patient and family experience. It is with this mindset that the lobby has been designed as a "place of gathering" including public space for gathering, education space, and access to the cafeteria. Recent examples of this design include Virtua Health (NJ), Einstein and Montgomery Hospital (PA). MVHS also anticipates that the MOB will house additional retail amenities, which will contribute to a more retail like atmosphere across the entire campus.


**Figure 29. Existing Conditions: Oriskany Street from the Northwest.**

In addition, the NYSDOT is advancing the NYS Route 5S Safety Project. The project will include safety enhancements, as well as improvements to corridor mobility and bicyclist/pedestrian facilities. The NYSDOT indicates that their project will support economic revitalization and create an attractive and inviting gateway to downtown Utica. The project limits include Route 5S from approximately Broadway to Broad Street and along John Street from Bleecker to Broad Street.

In the context of Utica's downtown, the IHC will be another progressive landmark building consistent with other recent and proposed developments including the AUD renovations and NEXUS (see Response 60), while acknowledging the city's building history (see Response 62).

Interesting and memorable architecture is a component to walkability.[35] Activity within and through the space is nearly guaranteed with the hospital being a 24-hour operation, and its proximity to the AUD and proposed NEXUS Center, as well as the Project Site's proximity to the Rayhill trail. In fact, the Project is expected to spur economic development and enhance downtown revitalization efforts.

**Figure 30. Proposed Conditions: View of the Proposed IHC from the Northwest.**

[35] Street Design: The Secret to Great Cities and Towns (2013, Victor Dover, John Massengale)

One of these benefits is to link existing and planned bike and pedestrian routes throughout downtown and the Harbor Point District via the IHC. The cumulative impact of these projects and mitigation measures will be that the IHC will be integrated into the City landscape and not isolated. As illustrated in Figure 30 and Figure 31, the Project's design elements will significantly improve the walkability challenges posed by the existing, blighted conditions.

**Comment 87: Joseph P. Caruso, City of Utica Planning Board, Email, 12/27/18:**

Presently, the campus corridor is proposed to be occupied by the hospital building and parking lots and parking garage. Even the ca. 1960s Kennedy Parking garage was constructed with a Columbia Street retail wing fronting the north side Columbia Street level of the garage, but this space is slated for demolition and to be replaced by a parking lot.

**Response 87:**

The current site plan for the IHC retains the "retail wing fronting the north side of the Columbia Street level of Kennedy Parking Garage." Although this will be used for the hospital's CUP, rather than retail, it will still promote walkability by retaining building frontage rather than creating additional surface parking.

**Comment 88: Joseph P. Caruso, City of Utica Planning Board, Email, 12/27/18:**

**Possible solution:** Locating some services (pharmacy, coffee shop, café, bank/credit union office, *etc.*) on the street level of the hospital building might ameliorate the situation described here. If this is not possible in the hospital building itself (due to the aforementioned "inside-out" building planning process), then perhaps these same proposed services can be located a) on the opposing sides of the street from the hospital, or b) on the street level of the parking garage, effectively breaking up the mass of parking.

**Response 88:**

See Response 86. As mentioned above, the lobby and main level of most hospitals are designed to be a center of gathering, offering some amenities, but not designed to offer retail. As a healthcare provider, MVHS recognized that its visitors are in a state of stress when they enter the hospital and want the hospital entrance to be easy to navigate and offer a sense of calm. These needs are not always consistent with a busy retail setting. That said, a "downtown hospital" will serve as the anchor property to new development that will include retail, restaurants and other city amenities. See Response 144. In addition, the ground level of the MOB, located on the south side of Columbia Street, west of the Cornelia Street intersection, could include the types of services suggested and those services and amenities are much more common in an ambulatory setting.

**Comment 89: Joseph P. Caruso, City of Utica Planning Board, Email, 12/27/18:**

**Summary:** I believe that the hospital campus can become a vital link in the connectivity of Utica neighborhoods if this issue is addressed.

**Response 89:**

The comment is noted. See Response 86 and 88.

**Comment 90: Deborah S. Windecker, Regional Planning & Program Manager, NYSDOT, Letter, 12/27/18:**

Overall, the Traffic Impact Study relied solely on traffic signal timing changes to mitigate the effects of the increased traffic volumes associated with the development. In addition, some of the proposed timing changes result in level of service drops to mainline NY 5S. Signal upgrades and geometry changes will be required to achieve acceptable level of service.

**Response 90**:

An addendum to the TIS is provided as Appendix D to this FEIS Responsiveness Summary. The Addendum addresses the NYSDOT's comment regarding traffic operations and potential mitigation measures. As requested by the NYSDOT, a separate analysis was conducted to take a conservative look at recommended mitigation measures on NYS Route 5S, specifically. The Addendum notes all recommended mitigation measures for the entire study area and is summarized below. Proposed mitigation and locations are also illustrated on Figure 31.

- Ensure adequate pedestrian facilities are available in the vicinity of the Project Site including locations that are expected to have increased pedestrian activity as a result of the proposed Project as shown on the mitigation plan (Figure 31)
- Upgrade or replace traffic signals to add detection, actuation, coordination, and pedestrian accommodations at the following locations:
  - 2-State Street & NYS Routes 5/8/12 off/on-ramp
  - 3-State Street & Lafayette Street
  - 4-State Street & Columbia Street
  - 6-Cornelia Street & NYS Route 5S/Oriskany Street
  - 8-Cornelia Street & Columbia Street
  - 10-NYS Route 5S/Oriskany Street & Broadway
  - 11-Broadway & Lafayette Street
  - 12-Broadway & Columbia Street
  - 20/21-NYS Route 5S/Oriskany Street & Genesee Street
- Optimize signal timings at the following intersections (upgrade/update equipment as needed):
  - The coordinated system which includes intersections 2 – State Street & On/Off-Ramps, 3 – State Street & Lafayette Street/Emergency Department Access (PM), and 4 – State Street & Columbia Street
  - The coordinated system which includes the intersections of 6 - NYS Route 5S (Oriskany Street) & Cornelia Street, 10 – NYS Route 5S (Oriskany Street) & Broadway, and 20/21 – NYS Route 5S (Oriskany Street) & Genesee Street
- Construct a dedicated right turn lane on the eastbound approach to intersection 2 – State Street & On/Off-Ramps
- Provide a center two-way left-turn lane on State Street from intersection 2 – State Street & On/Off-Ramps to just south of intersection 4 – State Street & Columbia Street
- Construct a dedicated left turn lane on the northbound approach to intersection 6 – NYS Route 5S (Oriskany Street) & Cornelia Street

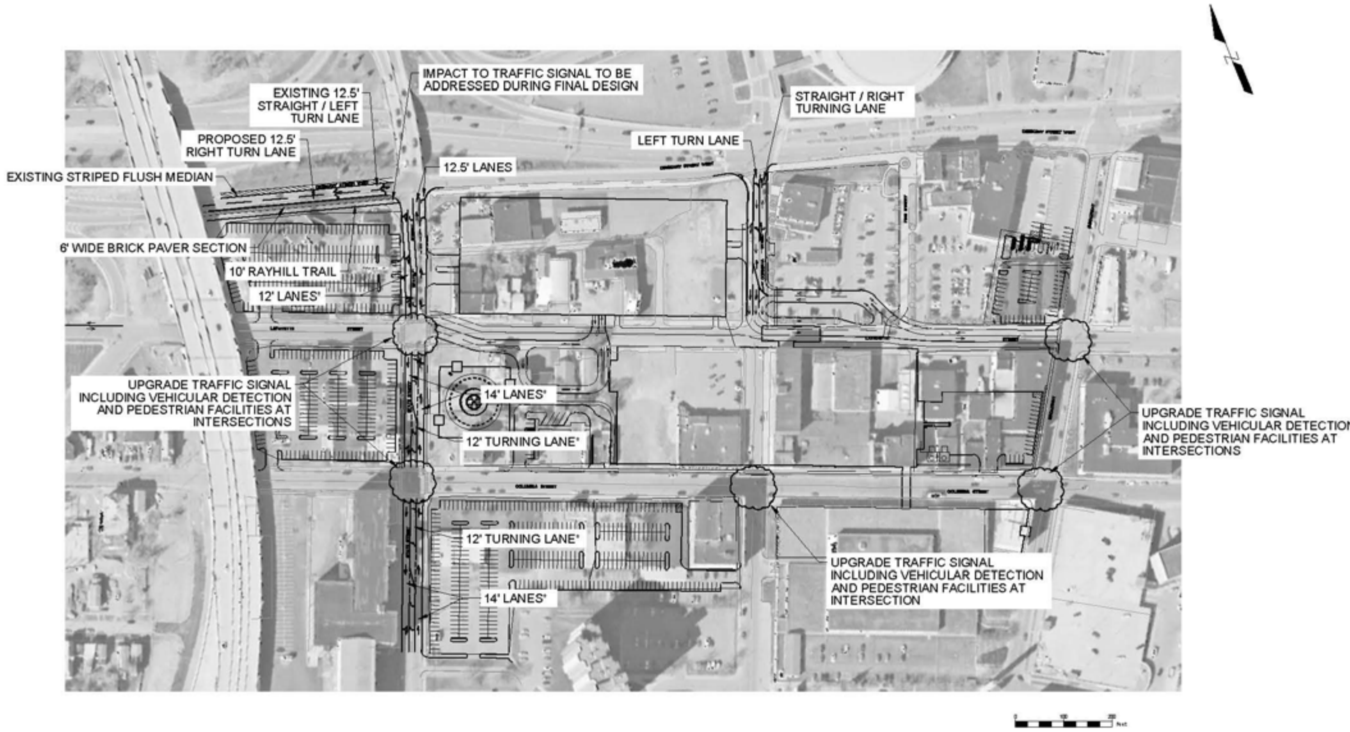


**Figure 31. Proposed Traffic Mitigation**

While the analysis also indicated a need to install a dedicated right-turn lane on the northbound approach to intersection 20/21 – NYS Route 5S (Oriskany Street) and Genesee Street, the NYSDOT noted that the impacts resulting from implementing this mitigation would negatively impact both the MVHS IHC Project and the NYS Route 5S project. Specific impacts noted by the NYSDOT include: eliminating on-street parking on Genesee Street between NYS Route 5S and Lafayette Street, significantly reducing or eliminating available snow storage areas on Genesee Street, and lengthening the crosswalk and amount of time required for pedestrians to cross Genesee Street. They also acknowledged the similar level of service proposed by the Addendum compared to the analysis conducted for the NYS Route 5S project. For these reasons, the NYSDOT does not recommend progressing with the mitigation noted to construct a dedicated right turn lane on the northbound approach at this intersection.

A mitigation plan is also included in the Addendum that shows how the physical/geometric mitigation measures along State Street and on Cornelia Street may be incorporated based on current design standards.

MVHS will continue to collaborate with NYSDOT, City of Utica, and Oneida County during the design and permitting phase, with the objective of providing safe and efficient operation of intersections on the State highway system within the MVHS footprint.

**Comment 91: Deborah S. Windecker, Regional Planning & Program Manager, NYSDOT, Letter, 12/27/18:**

The traffic volumes were collected in July 2018 when school was not in session and no adjustments were made. Also, the NY 5S 2019 projections are higher than the MVHS 2022 projections.

**Response 91:**

Additional counts were conducted at three study area intersections on January 15, 2019 when schools were in session. On that day, there were no weather events and no construction in the area impeding traffic flow. The volumes were comparable to the counts taken in July 2018. Therefore, the volumes used in the original TIS are reasonable for this analysis. Based on discussions with the NYSDOT, an additional analysis was conducted for the NYS Route 5S corridor with volumes from their analysis conducted as part of the design report (dated June 2017) for that project. The results of the additional analysis are provided in Appendix D to this FEIS Responsiveness Summary.

**Comment 92: Deborah S. Windecker, Regional Planning & Program Manager, NYSDOT, Letter, 12/27/18:**

Please provide the traffic modeling software (Synchro) files used in the capacity analysis to this office.

**Response 92:**

As requested, traffic model files have been submitted to the NYSDOT and updated output reports are included in the TIS Addendum provided as Appendix D to this FEIS Responsiveness Summary.

**Comment 93: Deborah S. Windecker, Regional Planning & Program Manager, NYSDOT, Letter, 12/27/18:**

As part of the ongoing NYSDOT project, the NY 5S intersections with Washington and Seneca Streets will no longer be signalized and access will be restricted.

**Response 93:**

While Figure 3.1 of the TIS (DEIS Appendix F) did show that the intersections of NYS Route 5S with Washington and Seneca Street were signalized, that was an error in the figure, but the model incorporates the traffic control for these intersections correctly. Figure 3.1 is revised in the TIS Addendum (Appendix D to this FEIS Responsiveness Summary).

**Comment 94: Deborah S. Windecker, Regional Planning & Program Manager, NYSDOT, Letter, 12/27/18:**

Pedestrian accommodations – crosswalks and pedestrian countdown timers should be provided. Please ensure all pedestrian related features are compliant with the 2011 PROWAG (Public Right of Way Accessibility Guidelines).

**Response 94:**

Any signal equipment upgrades or replacements found to be necessary to mitigate impacts by the Project shall be advanced in design and be paid for by MVHS. This work may include pedestrian indications and other accommodations such as crosswalk striping at the intersections, as well. The intersections that will need to be evaluated for potential upgrades or replacement include State/Lafayette, State/Columbia, Columbia/Cornelia, Columbia/Broadway, and Broadway/Lafayette. All pedestrian related features are compliant with the 2011 Public Right-of-Way Accessibility Guidelines (PROWAG).

**Comment 95: Deborah S. Windecker, Regional Planning & Program Manager, NYSDOT, Letter, 12/27/18:**

Three lane sections on both State Street and Genesee Street should be considered for impacted segments to mitigate changes to the downtown circulation patterns associated with the hospital.

**Response 95:**

The TIS Addendum (Appendix D to this FEIS Responsiveness Summary) includes the revised analysis results and recommended mitigation measures based on comments provided and discussed with the NYSDOT. It was not determined that additional through lanes were required to mitigate impacts on State Street or Genesee Street, but as utility work is completed within the pavement area of State Street as part of the MVHS IHC Project, based on a request by the NYSDOT, the roadway will be restriped to include a center two-way left-turn lane on State Street along with a right-turn lane on the eastbound approach of the intersection at State Street and the NYS Route 5S/Oriskany Street ramps. See Response 90. A mitigation plan is included as part of the Addendum that shows how the physical/geometric mitigation measures along State Street and on Cornelia Street may be incorporated based on current design standards.

**Comment 96: Deborah S. Windecker, Regional Planning & Program Manager, NYSDOT, Letter, 12/27/18:**

The build volumes do not reflect the impacts to downtown travel patterns due to the severing of Cornelia and Lafayette Streets.

**Response 96:**

The TIS (DEIS Appendix F) did include the redistribution of local traffic due to the closures of portions of Lafayette and Cornelia Streets. Based on discussions with the NYSDOT, the local redistribution was revised and accepted by the NYSDOT before the analysis was revised. The revised analysis is provided in Appendix D to this FEIS Responsiveness Summary.

**Comment 97: Deborah S. Windecker, Regional Planning & Program Manager, NYSDOT, Letter, 12/27/18:**

The trip distribution must show use of the Oriskany Street Interchange for trips to and from points south. The expectation is to have the trailblazing for the hospital at the Oriskany Street interchange (blue "H" signs). With the added trips to this ramp system, geometric modifications and signal phasing adjustments may be required at both State Street and Cornelia Street.

**Response 97:**

The trip distribution of hospital traffic was revised based on discussions with the NYSDOT. The revised distributions were reviewed and accepted by the NYSDOT before the analysis was revised. The trip distribution was also revised, per a NYSDOT request, to include an assumption that 10% of southbound traffic on Genesee Street during both the AM and PM peak hours would actually exit onto Whitesboro Street to Auditorium Drive (a private road) and approach the garage or main hospital entrance via Cornelia Street. The revised analysis is provided in Appendix D to this FEIS Responsiveness Summary.

**Comment 98: Deborah S. Windecker, Regional Planning & Program Manager, NYSDOT, Letter, 12/27/18:**

Currently all added trips from points south of Genesee Street are shown as left turns at Court Street where left turns are prohibited. Re-distribute additional lefts from Genesee Street northbound onto Columbia and Lafayette Streets.

**Response 98:**

See Response 97.

**Comment 99: Deborah S. Windecker, Regional Planning & Program Manager, NYSDOT, Letter, 12/27/18:**

At the 375-space parking lot at State & Cornelia, a two-way entrance could be placed on Cornelia Street [NYSDOT meant to say Columbia Street] with a right-in/right-out access on State Street.

**Response 99:**

Based on discussions with the NYSDOT, the comment is meant to suggest that a full access be placed on Columbia Street and the access on State Street could be right-in/right-out only. The proposed full access on State Street takes advantage of an existing full access driveway. There are currently no curb cuts or driveways on the south side of Columbia Street in this block and the ambulance access to the Emergency Department (ED) is proposed on the north side of Columbia Street on this block. Also, the analysis indicates that the full access on State Street will operate acceptably. Therefore, introducing a new driveway for the MOB parking lot on Columbia Street was not considered.

**Comment 100: Deborah S. Windecker, Regional Planning & Program Manager, NYSDOT, Letter, 12/27/18:**

The projected build volumes show a decrease in traffic at the Columbia/Cornelia and State/Lafayette intersections. The need for a traffic signal should be evaluated at these locations.

**Response 100:**

Based on the roadway closures associated with the Project, some movements at these intersections are eliminated; but based on the revised distributions associated with the Project, the volumes for other movements increase and it is assumed traffic signal control will be required. The NYSDOT acknowledged that this comment is more for the City to analyze and remove any signals that may not be necessary based on changes to signal operations within the study area.

**Comment 101: Deborah S. Windecker, Regional Planning & Program Manager, NYSDOT, Letter, 12/27/18:**

The intersections of Court Street/N-S Arterial Ramps and Court/State Street do not appear to be analyzed properly. The full Court Street/Ramp interchange should be studied and shown as coordinated with the Court/State Street intersection.

**Response 101:**

NYSDOT provided the necessary information to include the entire Court Street interchange in the analysis. The revised analysis is provided in Appendix D to this FEIS Responsiveness Summary.

**Comment 102: Deborah S. Windecker, Regional Planning & Program Manager, NYSDOT, Letter, 12/27/18:**

With adjustments made related to the Oriskany Street trip distribution, it is likely that mitigation will be required at both the intersections of State Street Ramp and NY 5S & Cornelia Street. These intersections should be evaluated further with consideration of possible movement prohibitions, geometric changes or alternative traffic control.

**Response 102:**

See Response 90.

**Comment 103: Deborah S. Windecker, Regional Planning & Program Manager, NYSDOT, Letter, 12/27/18:**

Traffic signals along city streets, including State, Columbia, and Genesee need to be upgraded or replaced for full detection, actuation, and communication to achieve the mitigated intersection levels of service depicted in the report.

**Response 103:**

Any signal equipment upgrades or replacements found to be necessary to mitigate impacts by the Project shall be determined in design and be paid for by MVHS. This work may include pedestrian indications and other accommodations such as crosswalk striping at the intersections as well. Several City of Utica intersections that will be included are State/Lafayette, State/Columbia, Columbia/Cornelia, Columbia/Broadway, and Broadway/Lafayette.

**Comment 104: Deborah S. Windecker, Regional Planning & Program Manager, NYSDOT, Letter, 12/27/18:**

In the Synchro analysis, adequate timing should be provided for pedestrians. The output for the Genesee Street and Bank Place pedestrian signal does not show a phase for the pedestrians.

**Response 104:**

The signal timing for the intersection of Genesee Street and Bank Place was revised to provide the existing pedestrian only phase.

**Comment 105: Deborah S. Windecker, Regional Planning & Program Manager, NYSDOT, Letter, 12/27/18:**

A Use & Occupancy permit from NYSDOT may be required for proposed parking lots adjacent to the North-South Arterial (NY 5/8/12).

**Response 105:**

The comment is noted. A Use and Occupancy permit, if required, will be obtained by MVHS and/or its contractor, prior to construction. In lieu of a permit, MVHS is investigating ownership of the small portions of ROW adjacent to the North/South Arterial.

**Comment 106: Deborah S. Windecker, Regional Planning & Program Manager, NYSDOT, Letter, 12/27/18:**

Page 80 [of the DEIS], The existing Cornelia Street 42-inch line does not connect to the proposed outfall under CSX (A9.1) but follows Potter Street and Potter Ave under the CSX to the Mohawk via a 48-inch brick (see attached record plans provided by City of Utica)[36]. If the Cornelia Street outlet is used, a separated connection to the A9.1 proposal would be needed. Additionally, the 42-inch line that follows Auditorium Drive is not in the public right-of-way and may require acquisition for the Auditorium Authority.

**Response 106:**

The narrative included in the DEIS (Section 3.9) was based on a conceptual design, which identified two options for stormwater discharge points:

- Discharge to the existing 42'' storm sewer at Cornelia Street, similar to existing patterns, and;
- Discharge to the planned new City of Utica A9.1 outfall

Since submission of the DEIS, Project designs have been advanced, which indicate that an estimated 75% of the Project Site's stormwater can be discharged to the planned A9.1 outfall; with the remaining 25% of the site discharging to the existing storm sewer in Cornelia Street. In addition, existing, upstream stormwater currently flowing north in the storm sewer in Cornelia Street will be re-routed to the west around the site and discharged to A9.1. This re-routing of existing stormwater from Cornelia will free up capacity for the portion of the site that will discharge there. Currently, all the existing stormwater from the Project Site goes to either the Cornelia Street storm sewer, or the combined sewer. By re-routing existing upstream stormwater discharge, and discharging a portion of stormwater generated on the Project Site to A9.1, the total flow in the existing storm sewer in Cornelia will be reduced. The A9.1 outfall is a NYSDEC grant-funded, City project, which is anticipated to be completed within the IHC construction schedule.

[36] The referenced record plans were omitted from the NYSDOT's 12/27/18 correspondence, but were subsequently provided via email by Beth Watts, P.E. PTOE, NYSDOT.

It is noted that off-site infrastructure and improvements not included in the IHC Project were not shown on the DEIS Figures. In addition, it is noted that the 42" storm sewer in Auditorium Drive is owned by the City of Utica, and easements for that infrastructure are under the jurisdiction of the City of Utica.

**Comment 107: Deborah S. Windecker, Regional Planning & Program Manager, NYSDOT, Letter, 12/27/18:**

The proposed A9.1 improvements are not shown on Figure 16 [of the DEIS].

**Response 107:**

Off-site infrastructure and improvements not included in the IHC Project were not shown on the Figure 16 of the DEIS.

**Comment 108: Deborah S. Windecker, Regional Planning & Program Manager, NYSDOT, Letter, 12/27/18:**

Figure 17 [of the DEIS] – Existing & Proposed Water Mains. Proposed installation of a 12-inch water main along Oriskany Street East between State Street and Broadway if feasible, should be undertaken in the near future to avoid additional cost to replacement of new installed features under the NYSDOT NY 5S project.

**Response 108:**

Since submission of the DEIS, Project designs have been advanced. The current plan for water main improvements includes installation of a 12" water main outside of the Oriskany Street pavement, from approximately mid-block between State Street and Cornelia Street, to Pine Street. Installation of a 12" water main is planned for just inside the existing curb line from Pine Street to Broadway. Construction of this water main will be coordinated with the NYSDOT NY 5S project.

**Comment 109: Deborah S. Windecker, Regional Planning & Program Manager, NYSDOT, Letter, 12/27/18:**

Page 85 [of the DEIS], During the development of the NYSDOT project, the drainage directed to the identified systems was deemed not plausible due to unavailable capacity and interference with sanitary outflow on Potter Ave.

**Response 109:**

As stated in Response 106, the existing 42" storm sewer in Cornelia Street (which is upstream from the City's CSO in Potter Street) is no longer being considered for discharge of stormwater generated on the Project Site. The Project will result in a net decrease in flow in the Cornelia Street storm sewer, north of the IHC.

**Comment 110: Stephen N. Keblish, Jr., Resident (Utica), Email, 12/27/18:**

Boilermaker traffic data not included. The annual Boilermaker Road Race culminates just blocks away from the proposed hospital site. Parking and traffic demands peak, consuming every available parking spot between Genesee Street and the Brewery District. Before making any determinations, additional studies should be performed to assess and understand the impacts the hospital project could have on parking and transportation during the construction and operation phases.[37]

[37] The Commenter's complete letter, which includes photographs, is included in Appendix B to this FEIS Responsiveness Summary.

**Response 110:**

The TIS (DEIS Appendix F) and the TIS Addendum (Appendix D to this FEIS Responsiveness Summary) address traffic concerns during typical commuter peak periods. The Boilermaker occurs on a Sunday. Event sponsors are required to provide for their own specific traffic control and permitting for the event. As stated previously in Response 77, the TIS does not evaluate all varieties of potential temporary traffic situations (*e.g*., if a roadway is temporarily closed or blocked). Safe and adequate flow of traffic during temporary events (*e.g.*, construction) is, as outlined in the DEIS, mitigated through the implementation of a maintenance and protection of traffic plan, which will be coordinated with roadway jurisdictions.

**Comment 111: Joseph Cerini, Citation Services, Email, 12/27/18:**

The DEIS includes a traffic study, however it was conducted in July 1918 [sic 2018] during one of the quietest months in downtown Utica. This is the height of the vacation season, *ie* no hockey, and limited use of the auditorium. Also, a concern is the expansion of the Auditorium and the planned Nexus, U District. Traffic concerns haven't been addressed with Oneida County Executive Anthony Picenti [sic] touting up to 1 million visitors to downtown Utica.

**Response 111:**

As noted in Response 91, due to comments regarding counts collected in July 2018, additional counts were conducted at three study intersections during the AM peak hour on Tuesday, January 15th, 2019 when schools were in sessions, and there were no weather events, and no constructing impeding traffic. The volumes were comparable, confirming the reasonableness of using the July 2018 data for this analysis. See the TIS Addendum for more information (Appendix D to this FEIS Responsiveness Summary).

Regarding the AUD Expansion and NEXUS project, new information regarding this project was requested and provided by the project sponsor. The anticipated traffic generated by the NEXUS project was incorporated into the Future No-Build Condition analysis for the TIS Addendum. The NEXUS project is expected to be complete in 2020. The estimated anticipated typical AM and PM peak period traffic generated by this project is included in the TIS Addendum. Off-peak or special events associated with the AUD Expansion and NEXUS Center project are not included in this analysis since, as discussed with the NYSDOT, they are not expected to impact typical commuter peak periods.

### 3.11 ENERGY

**Comment 112: Frank Przybycien, Genesis Group, Public Hearing, 12/6/18:**

And as the project grows with phases two, three and so on and so forth, to make sure that we have an energy district in downtown Utica that partially, at least, can be off grid in using renewable energies.

**Response 112:**

As noted in the DEIS (Section 1.1.7), a 40-month construction schedule, beginning in 2019, is anticipated. While MVHS is not proposing a phased construction schedule, construction of the parking garage and MOB will be controlled by the City and private developers, respectively. See Responses 115 and 118.

**Comment 113: Stephen Keblish, Resident (Municipality Unspecified), Public Hearing, 12/6/18:**

The increase reliance on fossil fuels that will be subsidized by this plan is also a concern. The primary method of transit projected for the plan is driving, the primary investment in transportation is the parking lots. Cars at the moment still highly rely on fossil fuel, this will not only increase the usage of fossil fuels that driving to downtown would cause, but downtowns themselves are the least reliant on car transportation of any modern living arrangement. I speak versus suburban and rural areas, but the current plan reverses that trend and takes space that is both walkable closely knit, incremental and grandular and creates large swaths of parking area which most people will be left to have to drive past rather than walk past.

**Response 113:**

The comment offers an unsubstantiated non-expert opinion. Moreover, the potential impact from driving is no different at St Luke's than it is at the Downtown Site. See Responses 86, 194 and 234.

**Comment 114: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

Impact on Energy: The Draft EIS addresses this topic in Sections 3.8 and 4. The Draft EIS acknowledges that to service the Project, existing electric and natural gas infrastructure will be relocated out of the IHC footprint, into public rights-of-way (p. 93/3527). It also acknowledges that to meet demand and minimize disturbances to existing customers, an 80 psi, 6-inch diameter gas main would be installed and extended approximately 2,500 If to the site from National Grid's existing 80 psi supply main, and that extension of the gas main may require crossing underneath an existing railroad. (p.94/3527). The Draft EIS indicated that construction would be in accordance with applicable codes to minimize impacts.

In spite of being raised twice during Scoping (pp. 1035 &1438/3527), the Draft EIS fails to disclose and needs to acknowledge the impact of the Project on the Co-Generation Facility recently constructed on the St. Luke's Campus that is shared between St. Luke's facilities and Utica College. The Hospital is the only customer for hot water and steam, and the largest customer for electricity. The facility's use numbers make it appear that this community resource, which contributes to the resiliency and efficiency of the energy system, would have to close if the hospital were to be moved to the Downtown site.

**Response 114:**

See Response 115.

**Comment 115: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

Placing the Project Downtown deprives Applicant of the energy-efficiency of the Co-Gen facility and undercuts Applicant's sustainability.

**Response 115:**

The 3.6 MW cogeneration plant, which became operational in 2009, currently provides energy services to Faxton-St. Luke's Healthcare, St. Luke's Home and Utica College; the facility is independently-owned and managed by Burrstone Energy Center (BEC). BEC is owned and operated by Co-Gen Power Technologies, which was formed as part of the Bette Companies with Bette & Cring. These entities are separate and unrelated to MVHS or any of its affiliates. So, whether and how that plant will continue to service its clients will be up to BEC and the remaining clients.

However, it is understood that three individual contracts exist: 1) between BEC and Utica College; 2) between BEC and St. Luke's Home and 3) between BEC and Faxton-St. Luke's Healthcare. Those contracts detail the terms of the individual agreements relative to BEC's obligations to provide energy to each entity. MVHS is not a party privy to the Utica College Agreement, but it is their understanding that it is substantially similar to the one with St. Luke's Home. That agreement, which is a requirements contract, requires that energy be provided for a 15-year term. The Agreement ends on or about August 2024. There is no provision that would terminate the St. Luke's Home agreement early based upon any changes in use or operation at Faxton-St. Luke's Healthcare.

From a facilities perspective, the consolidation of two aging facilities (100 and 60 years) will provide an opportunity for a more energy-efficient environment, with a state-of-the-art IHC that meets and exceeds current day best practices and building codes and promotes energy and water conservation and other sustainable measures, which will be incorporated to reduce the overall amount of resources used by MVHS.

A CUP will service the hospital. MVHS proposes to repurpose space within the existing Kennedy Garage, currently owned and occupied by Mohawk Medical Equipment (MME), as the hospital's CUP. The façade of the space will be improved, and a utility and pedestrian bridge will be constructed over Columbia Street from the hospital's 2nd floor to the CUP's 2nd floor.

The CUP will house three centrifugal chillers, a heat recovery chiller and four steam and eight hot water heating condensing boilers, each of which will be fueled by both natural gas and No. 2 Fuel oil (as required emergency fuel back-up). In addition, one of the advantages to the downtown location is stable, sustainable power from National Grid's Terminal Substation at Harbor Point. The terminal substation is built with a high level of redundancy and the Project's proposal to utilize underground conduit (vs aboveground lines) to service the IHC provides a greater degree of storm resiliency.

**Comment 116: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

The Draft EIS fails to discuss Cumulative Impacts to Energy from anticipated "U-District" projects.

**Response 116:**

See Response 125.

**Comment 117: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

Given the acknowledged impacts to off-site locations, public rights of way, potential "U-District" Cumulative Impacts, and the Co-Gen questions, the EIS needs to discuss whether such impacts could be avoided or lessened by relocating the Project to the St. Luke's Campus given the Co-Gen facility being on said campus and no "U-District" nearby.

**Response 117:**

The comment focuses on the St. Luke's Campus as an alternative for the Project as proposed, and an analysis of that potential site was conducted as part of the site study. However, utilizing the St. Luke's Campus as the Project Site would not achieve the Project's goals and would entail significant additional costs to upgrade as detailed above. See Responses 26, 28, 48 and 125.

**Comment 118: Michael Galime, City of Utica Council President, Letter, 12/27/18:**

The current power and electrical subway feeding the Central Business District is adequate for the existing structures yet is aging and not currently prepped for expansion. The current power and electrical delivery is not adequate for the proposed hospital structure. This is listed in the scoping filings, however, there is no financial or physical construction plan to remediate. The current natural gas delivery is not adequate for the proposed structure. There is no financial or physical construction plan to remediate. These issues must be addressed and remediated if this project is approved for development in the selected location.

**Response 118:**

The Project-related utility improvements, as outlined in the DEIS (Section 1.1.4), will be the financial responsibility of MVHS. As indicated in the DEIS, electric and gas utilities proximal to the proposed IHC are operated and maintained by National Grid. The gas mains and underground electric conductors are owned by National Grid. Service and capacity needs for the Project are being coordinated with National Grid. Implementation of the service connections and improvements will provide sufficient supply for the Project.

In regards to electric, the underground conduits and vaults proximal to the Project are owned by the City of Utica, and leased to National Grid for use. As stated in the DEIS (Section 3.8), the peak electrical demand load for the proposed IHC is estimated at 4,304.27 kW (SSR 2018). The existing infrastructure and electrical capacity of the grid will be sufficient to operate the IHC. It has been determined that dedicated electric feeders are not necessary to serve the IHC Project. The IHC Project will be served by two, separate, 13.2 kV primary services (which will also serve additional customers), from a common National Grid distribution substation (*e.g.*, Terminal Substation at Harbor Point).

The Primary Services for the IHC will be located in the CUP, which will be located on the southwest corner of Columbia Street/Broadway across from the MVHS Hospital. The hospital will be served from the CUP via a MVHS-owned utility bridge that will cross Columbia Street.

One of the advantages to the downtown location is stable power from National Grid's Terminal Substation at Harbor Point. The terminal substation is built with a high level of redundancy. In addition, the Project can utilize underground conduit (vs aboveground lines) to service the hospital which provides a greater degree of storm resiliency.

Natural gas utilities proximal to the Project Site are operated and maintained by National Grid. As stated in the DEIS (Section 3.8), the peak natural gas load and annual natural gas usage for the proposed IHC is estimated at 50 mcf/hour and usage of 90,000 mcf/year, respectively (SSR 2018). To meet demand and minimize disturbances to existing customers, an 80 pounds per square inch (psi) gas main would be installed and extended back to the existing 80 psi supply main. This will require approximately 2,500 lf of 6" main to be installed, including a crossing of the existing railroad to the north.

See also Response 125.

**Comment 119: Michael Galime, City of Utica Council President, Letter, 12/27/18:**

What will be the impact of MVHS leaving the cogeneration power plant facility behind? Will the operator continue to run the plant, and how will this effect the power delivery and rates for Utica College?

**Response 119:**

The cogeneration plant that currently provides energy services to Faxton-St. Luke's Healthcare, St. Luke's Home and Utica College is independently-owned and managed by Burrstone Energy Center (BEC). See Response 115.

**Comment 120: Michael Galime, City of Utica Council President, Letter, 12/27/18:**

The new facility is no longer going to produce its own power. There may be an impact to overall rates and delivery. Has this been studied? This should be included into the overall potential environmental impact.

**Response 120:**

See Responses 115 and 118. MVHS does not produce its own power at any of its present facilities. To the extent the comment is referencing the cogeneration plant that currently provides energy services to Faxton-St. Luke's Healthcare, St. Luke's Home and Utica College, that facility is independently-owned and managed by Burrstone Energy Center (BEC). BEC is owned and operated by Co-Gen Power Technologies, which was formed as part of the Bette Companies with Bette & Cring. These entities are separate and unrelated to MVHS or any of its affiliates.

**Comment 121: Stephen N. Keblish, Jr., Resident (Utica), Email, 12/27/18:**

Discussion of the Burstone Microgrid. The St. Luke s Campus is powered and heated by a natural gas cogeneration plant (**https://www.powerbycogen.com/case-studies/burrstone-energy-center-chp-microgrid/**). "The microgrid reduces greenhouse gas emissions by 4,000 tons annually, provides power stability, reduces demand on the local utility, and saves hundreds of thousands of dollars annually in utility costs."

**Response 121:**

See Response 115.

## 3.12 UTILITIES

**Comment 122: Richard Bause, Resident (Utica), Public Hearing, 12/6/18:**

One is that you have a lot of environmental issues, you have a lot of old infrastructure.

**Response 122:**

See Responses 123 and 124.

**Comment 123: Linda K. Paciello, Ph.D., Resident (New Hartford), Letter, 12/18/18:**

The infrastructure that has to be replaced is massive. Is Utica going to fund new sewer and water piping? What will be the monetary impact to the taxpayers as well as the physical impact upon the current continuing residents of that area, while they try to undertake replacing all the necessary piping?

**Response 123:**

Sanitary sewer, storm sewer, and water utilities will be replaced and relocated, as needed, to remove them from the footprint of the hospital campus. Potential impacts from these activities, including mitigation to reduce or eliminate impacts were evaluated in the DEIS (Section 3.1, 3.2, and 3.9). Upgrades to those utilities, owned by the City of Utica and the Mohawk Valley Water Authority, will be undertaken and funded by the Project Sponsor (MVHS) as part of the overall IHC Project. Electric and natural gas infrastructure will also be replaced and re-routed in support of the Project. Those upgrades will also be funded by MVHS. These infrastructure improvements will also support future economic revitalization efforts.

Similar to other infrastructure upgrade or replacement projects, this work will likely have temporary impacts to residents, pedestrians, and motorists. Those temporary impacts, as identified in the DEIS, will be mitigated by notifications, temporary services, or detours as needed.

**Comment 124: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

Impact on Utilities: The Draft EIS addresses this topic in Section 3.9. It acknowledges that existing sanitary sewers, water lines, storm sewers would be removed and replaced with new pipes and arrangements, impacts would occur from this work, and that some of this work would be in public rights of way just off-site.

The Draft EIS fails to acknowledge that the existing facilities are a grid that developed to serve a small-scale incremental type of development; that there is an increasing demand for this type of environment for redevelopment in Utica *(e.g.*, recent Baggs. Sq. redevelopment); that such redevelopment is of the type intended to be fostered by the Gateway Historic Canal District rules and the Utica Master Plan; and that destroying this grid would be the waste of a community resource needed to foster redevelopment.

**Response 124:**

The water and sewer grid that the Commenter mentioned would be improved and not “disturbed.” The planned improvements to the water, storm sewer and sanitary sewer infrastructure will replace this existing, antiquated arrangement with new infrastructure that is better designed and constructed to more efficiently serve development at the Project Site. The planned infrastructure improvements will result in a positive impact to the environment, because newly constructed infrastructure will result in less potable water loss due to leaks, less infiltration of ground water into sanitary sewers, and less exfiltration of sewage that can find its way into storm sewers, and ultimately the Mohawk River. The improved infrastructure will also be better able to serve the surrounding development discussed by the Commenter. Water and sewer can continue in a grid pattern around the IHC. See Responses 123 and 125.

**Comment 125: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

The Draft EIS fails to address Cumulative Impacts from the “U-District” on utilities.

**Response 125:**

Water

The design of water usage estimates at the IHC has advanced further since the submission of the DEIS. Water demand, which is based on the maximum flow anticipated to be required by the IHC during the busiest times, do not occur consistently over the full 24-hours in a single day, and consist of both domestic uses and cooling tower uses. Peak (maximum) water demand is anticipated to be approximately 484 gpm for domestic uses and 168 gpm for cooling tower uses, totaling 652 gpm. Daily water usage is anticipated to be in the range of 243,360 gallons for domestic uses, and seasonally an additional 146,880 gallons per day are anticipated to be used for cooling tower use, for a total of 390,240 gallons per day.

In addition to the IHC, cumulative impacts of the proposed NEXUS center have been estimated. To date, no design information is available for NEXUS, so the water usage at the existing AUD was analyzed for comparison. Peak hour water usage (metered) from the AUD during a Comets hockey game in February of 2017 was used as the basis of NEXUS estimates. AUD peak hour volume was converted to an average rate of 77 gpm. This peak hour average rate was reduced by a factor equal to AUD capacity (3,800 fans) compared to estimated NEXUS tournament maximum occupancy (500 fans), or 10.1 gpm. A peaking factor of 2.5 was applied to this average rate to account for peaks during the peak hour, which results in a peak rate of approximately 25 gpm. This estimated peak hour rate was then inflated by a factor of 4 to account for ice chillers, and to give an overly-conservative peak demand of 100 gpm. For daily water use, AUD water usage patterns based on a 12-hour usage period and peaking factor of 6.5 were simulated, resulting in a daily use of approximately 11,000 gallons per day.

The cumulative capacity needs (IHC and NEXUS) were reviewed with the MVHWA, which confirmed that the existing system capacity can serve both the anticipated IHC, and estimated NEXUS peak demands and daily totals, as identified above (R. Goodney, MVWA email dated 1/22/19).

Sewer

See Responses 50 and 51. Wastewater from the IHC Project will discharge to an improved existing 24" diameter sewer in Columbia Street that flows west to State Street, where it discharges to the existing 4-foot x 4-foot State Street Trunk Sewer. From there, it flows approximately 1,300 feet north to its discharge at the Railroad Interceptor Sewer. The existing 4-foot x 4-foot State Street Trunk Sewer has been modeled, and the results of the hydraulic model indicate there is capacity for the additional flow from the IHC and other projects. In addition, the City has undertaken multiple CSO Control projects (A1 through A4, A8.1 and A9.2, as described in the City's Long Term Control Plan) over the last 6 years that have resulted in excess capacity in the Railroad Interceptor Sewer, which is where wastewater from the NEXUS project will be conveyed.

Electric & Natural Gas

National Grid has confirmed that they can provide electric and gas services to both the MVHS IHC and the NEXUS Center projects with certain improvements, which will be paid for by MVHS and the Upper Mohawk Valley Memorial Auditorium Authority, respectively (see Response 118).

Stormwater

See Response 55.

**Comment 126: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

The Draft EIS fails to acknowledge that the above impacts [on utilities] could be largely avoided by relocation of the Project to the St. Luke's Campus where the public grid would not be disturbed.

**Response 126:**

The comment focuses on the St. Luke's Campus as an alternative for the Project as proposed, and an analysis of that potential site was conducted. However, utilizing the St. Luke's Campus as the Project Site would not achieve the Project's goals and would entail significant additional costs to upgrade as detailed above. See Responses 26, 28 and 48. Moreover, as noted, the only impact to the utility grid is a positive impact from infrastructure upgrades that would be paid for as part of the Project. See Responses 123 and 124.

**Comment 127: Michael Galime, City of Utica Council President, Letter, 12/27/18:**

The current water delivery to the Central Business District is adequate for the current structures within the proposed footprint. The current water delivery is not adequate for the proposed structure. There is no financial plan to route appropriately sized mains to the proposed site, nor is there a physical construction plan to route the appropriately sized mains to the site from the current inlets from the MVWA Hinckley Reservoir feeder pipes. These issues must be addressed and remediated if this project is approved for development in the selected location.

**Response 127:**

The Project-related utility improvements, as outlined in the DEIS, will be the financial responsibility of the Project. Water demands for the IHC Project were clarified in Responses 49 and 125. As summarized in the DEIS (Section 3.9), MVHS has coordinated its Project needs with the Mohawk Valley Water Authority (MVWA). In correspondence dated August 8, 2018 (see DEIS Appendix J), the MVWA indicated that they can meet the water demands of the Project "[ ]…with existing water system delivery capacity and storage reserves. There will be no adverse impact on current capacity or service levels to others. Final Campus configuration will require abandonment and rerouting of some water mains. Furthermore, fire quantity demands can be supported in terms of water storage capacity however, the required flow rates and pressures may require booster pumping dependent upon the final demand."

**Comment 128: Michael Galime, City of Utica Council President, Letter, 12/27/18:**

The current budget for the hospital proposal does not include water, sewer, gas delivery, or overall infrastructure cost. Who will be expected to pay for these additions to the project if there are overruns or unanticipated issues crop up.

**Response 128:**

The Project-related utility improvements will be the financial responsibility of the Project Sponsor and are included in the Project Sponsor's budget. The improvements will enhance utilities for this Project and future projects in the vicinity.

**Comment 129: Michael Galime, City of Utica Council President, Letter, 12/27/18:**

Infrastructure Cost. The following are not currently specified within the 480 million dollars of proposed cost.

- Storm Water Mitigation
- Water Delivery
- Natural Gas Delivery
- Power Delivery

There is a potential negative impact where these costs will fall outside the specified scope, and MVHS will look to the City, County, and State for additional funding.

**Response 129**:

As outlined in the DEIS, the Project-related utility improvements will be the financial responsibility of the Project Sponsor and are included in the Project budget. See Response 128.

### 3.13 NOISE AND ODOR

**Comment 130: Frank Montecalvo, Attorney at Law, Letter, 12/26/18**:

The Draft EIS addresses this topic in Section 3.10. Impacts are expected to be primarily related to the construction phase. The Draft EIS fails to acknowledge that relocating the Project to the St. Luke's Campus would minimize these impacts, particularly to off-site receptors, owing to the Campus' more-open surroundings, the decreased need to demolish buildings and reroute public infrastructure, and the likelihood that such impacts would be better monitored by an on-site Applicant.

**Response 130**:

Impacts related to noise and odor during construction of the IHC would be common regardless of Project location. The DEIS demonstrates that these impacts are temporary, can be adequately monitored and will be adequately mitigated at the Downtown Site.

To the extent that the comment focuses on the St. Luke's Campus as an alternative for the Project as proposed, an analysis of that potential site was conducted. However, utilizing the St. Luke's Campus as the Project Site would not achieve the Project's goals and would entail significant additional costs to upgrade as detailed above. See Responses 26, 28 and 48.

### 3.14 HUMAN HEALTH

**Comment 131: Richard Bause, Resident (Utica), Public Hearing, 12/6/18**:

People haven't really looked at what happens when you have the auditorium totally full for a hockey game, you're going to put a sports complex over to the other side in that particular area. What happens if you have a mass casualty at the same time, where is everybody going to congregate?

**Response 131**:

See Response 134.

**Comment 132: Kevin Revere, Director of Emergency Services, Oneida County, Public Hearing, 12/6/18**:

I would like to thank the planning board and O'Brien and Gere, we've spoken in June and discussed the CSX Railroad tracks and the concern that people had brought up regarding that, as I did also, I done my own examination, but some professionals from O'Brien & Gere and others took a look at the concerns that had been raised regarding the proximity to the proposed hospital to the railroad tracks, and as I suspected, their conclusion was what I concluded also that there really is no concern regarding that. I think you used the term in the report O'Brien & Gere did that it's negligible, the fear of an accident happening close to, I would put it less than that because they did a thorough job.

**Response 132**:

The comment is noted.

**Comment 133: Stephen Keblish, Resident (Municipality Unspecified), Public Hearing, 12/6/18:**

The county's emergency management plan cites hazardous materials in transit as moderate to high hazard, the highest ranking that any potential hazard may have in Oneida County or estimated, at least, and that the hazards that occur most often include the transport of hazardous materials. The mitigation of those kind of risks need to be finalized and a new comprehensive emergency management plan that would project plans and contingencies in case still were to happen within a hospital and not merely just waiting to be a concern that one would have for a transit accident.

**Response 133**:

See Comment 132 and Response 134.

**Comment 134: Linda K. Paciello, Ph.D., Resident (New Hartford), Letter, 12/18/18**:

Building within a red zone surrounding the railroad is not recommended. If there were an emergency, how will you quickly evacuate patients from such a tall structure and where will you evacuate to?

**Response 134**:

An analysis of potential rail-related impacts including the likelihood of occurrence was provided in the DEIS (see DEIS Section 3.11.4). As noted in the DEIS, railroads are commonly in proximity to structures such as hospitals. In addition, the SEQRA regulations provide that the analysis of catastrophic impacts "would likely occur in the review of such actions as an oil supertanker port, a liquid propane gas/liquid natural gas facility, or the siting of a hazardous waste treatment facility. It does not apply in the review of such actions as shopping malls, residential subdivisions or office facilities." (6 NYCRR 617.9(b)(6))

On September 16, 2016, the Federal Department of Health and Human Services published a final rule (42 CFR Parts 403, 416, 418, *et al*) regarding "**Emergency Preparedness Requirements for Medicare and Medicaid Participating Providers and Suppliers**." This final rule established national emergency preparedness requirements for Medicare- and Medicaid-participating providers and suppliers, including MVHS facilities, to plan adequately for both natural and man-made disasters, and coordinate with federal, state, tribal, regional, and local emergency preparedness systems. It also provided planning assistance to providers and suppliers to adequately prepare to meet the needs of patients, residents, clients, and participants during disasters and emergency situations.

Facilities, including those operated by MVHS, are required to perform a risk assessment that uses an ''all-hazards'' approach prior to establishing an emergency plan. The plans are updated annually, and include elements for training, testing and drills. Both St. Luke's and SEMC operate under these federally-required emergency plans. An example plan table of contents is provided as Appendix E to this FEIS Responsiveness Summary. An emergency plan that meets the federal requirements will be on file for the Project.

In regard to the IHC, the all-hazards risk assessment will be used to identify the essential components to be integrated into the facility emergency plan. An all-hazards approach is an integrated approach to emergency preparedness planning that focuses on capacities and capabilities that are critical to preparedness for a full spectrum of emergencies or disasters. This approach is specific to the location of the provider or supplier and considers the types of hazards most likely to occur in their areas. These may include: care-related emergencies; equipment and power failures; interruptions in communications, including cyber-attacks; loss of a portion or all of a facility; and interruptions in the normal supply of essentials, such as water and food.

In support of NYSDOH's CON process, MVHS is required to submit environmental documents prior to the NYSDOH's approval to occupy the new facility. The emergency preparedness plan is one of those required documents, which includes evacuation planning as an element of the plan. During this process, MVHS is also required to provide evidence of staff and provider training and education.

It should also be noted that, unlike many other business-occupying facilities, hospitals practice a "shelter-in-place" strategy, which includes horizontal evacuation as a first step in the evacuation process. In the rare occasion that there is a disaster that requires a complete facility evacuation, MVHS would coordinate with its mutual aid agreement agencies, regulatory agencies and FEMA agencies as outlined in the MVHS plan and under the direction of the authority having jurisdiction.

**Comment 135: Linda K. Paciello, Ph.D., Resident (New Hartford), Letter, 12/18/18:**

When the old buildings are taken down there is sure to be asbestos and lead. The air quality for the people who live in that area is surely going to be affected.

**Response 135:**

As indicated by the Project Sponsor (MVHS) in the DEIS (Section 3.4), "Due to the age of existing buildings within the project footprint, it is likely that building materials will contain hazardous materials such as asbestos-containing materials (ACMs) and lead-based paint (LBP), which would need to be identified and managed prior to initiation of demolition activities."

MVHS would be required to obtain demolition permits for existing buildings to be removed within the Project footprint. As required by existing regulations, a hazardous building materials survey will be conducted to identify the potential presence of hazardous materials such as ACM and LBP in buildings to be demolished. Based on the survey and as indicated by the Project Sponsor in the DEIS, the New York State Department of Labor's Code Rule 56 requires that all work that disturbs ACM be done by trained workers following special procedures and engineering controls (including air monitoring) to prevent the spread of asbestos into the air and ensure ACM has been properly removed.

The United States Environmental Protection Agency (USEPA) and the State of New York maintain regulations that address identification, handling, monitoring and proper disposal of identified and/or presumed hazardous materials. These procedures will be adhered to throughout the duration of the Project to reduce potential exposure to workers and the public.

ACM, if identified, will be removed prior to or during demolition activities by a licensed asbestos abatement contractor and disposed of in an approved landfill. Third party air monitoring will be conducted throughout the Project, as required by regulation. LBP is not typically removed from buildings prior to demolition. Therefore, construction debris will be laboratory tested prior to removing it from the Project Site to determine the appropriate disposal landfill. If other hazardous materials are observed that will be impacted during demolition activities, they will be handled and disposed of in accordance with appropriate regulatory requirements.

**Comment 136: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

Impact on Human Health: The Draft EIS addresses this topic in Section 3.11. The Draft EIS acknowledges that impacts to health could result during the demolition and construction phases through exposures to impacted soils and groundwater and hazardous materials, such as asbestos from old buildings.

**Response 136:**

See Responses 135 and 142.

**Comment 137: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

The Draft EIS touts the health purposes of the Project without reference to site, and attempts to address the "red zone" railroad problem.

**Response 137:**

The Commenter's comment was addressed in the DEIS (Section 3.11.4). The DEIS assessment was prepared in consultation with the County's Department of Emergency Services (see Comment 132 and Response 134).

**Comment 138: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

The Draft EIS fails to consider that the purposes of the State's Grant – which is intended to improve human health – are undermined by the Project's placement on the Downtown Site, as opposed to the St. Luke's Campus, because: (a) it dis-integrates the system of care by placing 2 miles between the new hospital beds and the rehab/nursing facility, (b) removes the anchor institution from the existent *defacto* medical district near the Utica/New Hartford line, (c) gives the Applicant an additional medical campus to manage; and, apparently, per the Applicant's own numbers, (d) undermines Applicant's financial stability by increasing the number of staff per hospital bed.

**Response 138**:

This comment does not raise any environmental impacts, but rather expresses an unsubstantiated opinion that the purposes of the State's grant are undermined by the downtown location. However, the NYSDOH has already considered these issues when it reviewed MVHS's grant application and awarded the grant to MVHS based on its application to construct the IHC at the proposed Downtown Site. In addition, NYSDOH also reviewed and approved MVHS's CON to construct the new facility in downtown Utica. See Responses 1 and 30.

**Comment 139: Frank Montecalvo, Attorney at Law, Letter, 12/26/18**:

With regard to the "red zone" reference is made to my prior Scoping comments on this topic (Draft EIS p. 1036/3537). Although the Draft EIS attempts to address concerns raised during Scoping about the potential of having to evacuate the Project were a train derailment to occur involving hazardous substances on the CSX Railroad Tracks which pass about 900 feet north of the project site, the Draft EIS still fails to assess the feasibility of evacuating what would become Greater Utica's only hospital and fails to substantiate any feasibility with an Evacuation Plan. This should have been a "fatal flaw" of the Downtown Site.

WARNING: The City of Utica, County of Oneida and other involved agencies are hereby placed on notice that if they approve of this Project on the Downtown Site, they are knowingly and unnecessarily placing human lives at risk both due to gridlock and the red zone because the St. Luke's Campus does not carry such risks.

**Response 139**:

See Comment 132 and Response 134.

**Comment 140: Gregory D. Eriksen, Bousquet Holstein, PLLC (on behalf of Angela Elefante), Letter, 12/26/18**:

The Draft EIS does not adequately address certain potentially serious environmental concerns regarding the downtown site. The proposed location is within approximately a half mile of railroad tracks over which trains carrying petroleum products and toxic chemicals travel. It is our understanding that the hospital is located within an evacuation zone, known as a 'Red Zone'. Sometimes, trains derail. This past June, a train carrying oil derailed in northwestern Iowa, resulting in the discharge of 230,000 gallons of crude oil into surrounding floodwaters. A derailment of a train carrying oil or chemicals within walking distance of a hospital is an invitation to an unmitigated public health catastrophe.

Notably, the Draft EIS does not include an evacuation plan for the hospital, and instead of discussing how MVHS would respond to such an emergency, the section discussing the railroad minimizes the severity of the risk and focuses on the low "likelihood that the catastrophic impact would occur." *See* Draft EIS Pg. 91. Instead of detailing the tangible steps that would be taken in the event of a spill, the Draft EIS merely provides a list of the agencies and organizations that would be pressed into duty to respond. *See* Draft EIS at pgs. 100-102. It is irresponsible to place some of Utica's most vulnerable residents within feet of a potential oil or chemical spill. It is irresponsible to do so while dismissing the likelihood of a catastrophe and while expending little effort on a plan to respond to such an emergency. While the odds of a derailment may be small, the consequences would be severe. This issue was raised throughout the scoping process, and it is minimized by the Draft EIS. Notably, the St. Luke's campus location is not within the Red Zone.

**Response 140**:

See Comment 132 and Responses 26, 28, 48 and 134.

**Comment 141: Gregory D. Eriksen, Bousquet Holstein, PLLC (on behalf of Angela Elefante), Letter, 12/26/18:**

The Draft EIS does not adequately address the environmental concerns that exist underground at the proposed downtown site. The Sanborn Maps, which the Draft EIS acknowledges (see Draft EIS at pgs. 92-94), denote the presence of several gas tanks. It is our understanding that these maps also detail underground concerns such as gas lines and water lines, some of which are very old and damaged. The Draft EIS does not clarify whether and how underground gas and water lines will be restored or replaced.

**Response 141:**

The DEIS (Section 3.9) outlines proposed utility improvements, which will be necessary to support the Project. These improvements include extension and relocation of existing utilities, including replacement of some older infrastructure. Based on the significant history of development within the Project area, it is likely that old abandoned infrastructure will also be encountered. Abandoned infrastructure encountered during construction, will be verified with the owner, and abandoned, replaced, or relocated as appropriate. As stated in the DEIS (Section 3.11), other regulated materials encountered during construction phase activities will be managed, transported and disposed in accordance with applicable regulations. See Response 123.

**Comment 142: Robert S. Derico, RA, Acting Director, Dormitory Authority of the State of New York (DASNY), Letter, 12/27/18:**

DASNY reiterates its comment that complete Environmental Site Assessments ("ESAs") should be undertaken for all properties included within the project limits of the proposed IHC. As previously noted in DASNY's Scoping Comments, the historic uses within this former industrial section of the city may have included substances now known to be health hazards, potentially leaving behind toxic residue. Once site control is obtained, any outstanding ESA's should be completed promptly. This will aid in any needed mitigation of construction-related impacts anticipated from soil erosion, site clearing and grading and excavation activities, etc.

**Response 142:**

It is not completely accurate to state that this area of downtown Utica is a "former industrial section" of the City. Certainly, along the Old Erie Canal (Oriskany Street corridor), there were large industrial parcels within the City, specifically the former textile factories, but these sites are situated both east and west of the proposed IHC location. Historically, this area has been a mix of commercial, retail, residential, and light industrial.

The DEIS (Section 3.11) also summarized and appended information and data (see DEIS Appendix H), which was relied upon to assess the potential impacts from prior and existing land uses. This information included a preliminary due diligence report, which provided data relative to properties within and proximal to the Project footprint. In addition, prior Phase I ESAs were summarized and appended to the DEIS for 401-407, and 409 Columbia Street. The Project Sponsor, MVHS, indicated in the DEIS that it will perform ongoing due diligence assessments for existing facilities to be acquired for the IHC Project.

The presence of Historic Fill Material (HFM) is anticipated and existing soils will be removed from 0 to 2-foot depths in all areas that will remain green (*i.e.*, grass or landscaped areas) and replaced with clean, imported material. Removal of older structures and impacted soils will also improve the quality of surface water runoff under future build conditions.

Based on the urban setting, age of existing structures, prior land uses and review of the DEIS data, which identified known "Recognized Environmental Conditions" (RECs), the Project Applicant, MVHS, concluded that construction of the Project (including demolition and site disturbance activities) will likely encounter ACM, LBP, and other regulated substances (in soils and/or groundwater), which will require management in conformance with applicable state and federal regulations.

To mitigate potential impacts, the DEIS identified the following mitigation measures:

- Performance of due diligence evaluations (hazardous material surveys) to identify the potential presence of ACM, LBP and other regulated materials, which could be encountered during construction phase activities
- Compliance with state and federal regulations regarding the handling, transportation and disposal of ACM, LBP, and other regulated materials encountered during construction phase activities
- Preparation and implementation of a Construction Health and Safety Plan (CHASP) to protect construction workers and the community from exposure to potentially impacted materials
- Spill response measures, training and reporting
- Compliance with City Code requirements

**Comment 143: Joseph Cerini, Citation Services, Email, 12/27/18:**

I see the environmental review for downtown is not complete with testing and analysis that was still underway as of 2 weeks ago. Any consideration of environmental impact should be available before any approvals. I see no results of the collection and analysis of soil and water samples. Based on the results, testing and monitoring could go on for a extended amount of time, and in the end we may end up with razed building that need installation of sub-slab depressurization systems that would add detrimental cost to any project.

**Response 143:**

See Response 142. During hazardous materials surveys and demolition of buildings, the presence of contaminated soils or groundwater, as previously stated, will be mitigated through sampling, stockpiling, and disposal methods commonly utilized for development projects. The Project budget accounts for these types of expenses.

### 3.15 COMMUNITY CHARACTER

**Comment 144: Gregory D. Eriksen, Bousquet Holstein, PLLC (on behalf of Angela Elefante), Letter, 12/26/18:**

The project involves the demolition and redevelopment of approximately 25 acres of Utica's Central Business District and it contradicts the principles and goals for downtown economic development set forth by this Board in its Neighborhood-Based Master Plan (the "Plan"). The Plan states that "Utica's downtown needs to become an interesting, safe and easy place to move around" for both vehicles and pedestrians. *See* Master Plan at pg. 36. To this end, the Plan identifies various retail opportunities, restaurant opportunities, and housing opportunities. *See* Master Plan at pgs. 36-40. The Board clearly envisions downtown Utica as a mixed-use area where retail, entertainment, and housing converge. The Board also identifies the importance of promoting culture and the arts downtown. *See* Master Plan at pg. 41. Downtown as idealized by the Board is a mixed-use gathering place for shopping and entertainment, as well as a living space. It is a place where Uticans choose to spend time and interact with each other.

**Response 144:**

See Response 32 with respect to demolition and redevelopment of approximately 25 acres of Utica's Central Business District.

By its own terms, the City of Utica's Master Plan was not meant to dictate land use, but rather was designed to be flexible. Its purpose "is to provide policy direction and recommendations to guide the City and its partners in the formulation of development strategies, economic incentives, and land use controls that collectively will foster development supportive of, and complementary to, re-establishing Utica as a regional hub, while simultaneously strengthening the economic and social fabric of the City's neighborhoods."

According to the City's Master Plan, the City's urban landscape is characterized by vacant or significantly under-utilized industrial buildings and many of its neighborhoods are either deteriorating or continuing to decline. The Master Plan identifies eight (8) goals for Downtown Development and the proposed Project is consistent with six (6) of them: (1) provide safe, comfortable and efficient multi-modal connectivity; (3) Identify ways to encourage creative partnerships and collaborations working to support a dynamic downtown with an entrepreneurial spirit; (4) ensure a safe downtown environment; (5) recognize downtown as a community gathering place; (6) foster an environment for economic vitality downtown; and (7) use downtown to express the pride of Utica residents. The secondary economic growth spurred by the Project is consistent with the remaining goals: (2) provide a framework, guidelines, and action plan for the arts that will contribute to creating a culturally dynamic downtown; and (8) promote residential and mixed-use development downtown that is consistent with Utica's heritage and architecture.

For example, the Master Plan identifies several implementation strategies under each of these goals that will be fulfilled by the IHC. For example, implementation strategies under Goal 1 "provide safe, comfortable and efficient multi-modal connectivity" includes a public parking strategy to accommodate future public and private development/redevelopment and to upgrade existing infrastructure (p. 43). The IHC will satisfy this goal and have a positive impact on the surrounding area by:

- Existing infrastructure upgrades (water, sewer, gas and electric) that will provide for future development.
- Linking existing and planned bike and pedestrian routes throughout downtown and the Harbor Point District via the health campus.
- An improved transportation network, including easy access from multiple directions.
- Parking co-utilization for the health campus, the AUD, central business district and adjacent businesses based on the time of day. Hospitals may have a high demand for parking during the weekday but lower demand in evenings and weekends when public events are most often held.

The IHC will satisfy goals 5 and 7 by providing long term sustainability to MVHS and healthcare in the community. Not only will a new facility provide structural longevity that the current facilities cannot offer, but it will become a community center for healthcare that will continue long into the future. The ability to attract new and younger providers will help to ensure that the healthcare needs of the community will continue to be met and grow as needs change into the future. The new facility will also create a culture of teamwork and patient-centered care that will attract staff that seeks these values in their work which will help to ensure this culture is maintained well into the future. The entire system working toward these goals will create a healthier community and provide better outcomes – resulting in more community pride.

Strategies under Goal 6 foster an environment for economic vitality downtown include giving downtown locations the highest priority when siting facilities which have significant employment or destination potential; attracting investment and talent to downtown; and making a strong, visible connection between the AUD and the commercial core (p. 44). The IHC will satisfy each of these strategies as well.

Specifically, the IHC will provide the opportunity for growth as the needs of the community change and will promote development of the surrounding area. It is a unique opportunity to provide access to a state-of-the-art healthcare facility, while also spurring economic development and playing a pivotal role in enhancing the downtown revitalization efforts, including supporting the exciting energy at Bagg's Square, Harbor Point and Varick Street. The IHC will also create future healthcare and development opportunities to anticipate needs in education, research and applied sciences (also satisfying Goal 3).

In fact, nothing enlivens a city more than the presence of its community members and visitors. Downtown housing, commercial, food, retail, education and entertainment venues are positioned to greatly benefit from the influx of more than 3,500 MVHS employees and medical staff at the new IHC. The new campus will create a safer environment for people to work, live and enjoy recreational activities. It could also bring other businesses such as grocery stores and farmers markets to the area. The increased ability to participate in recreational activities along with improved access to healthier foods will provide a healthier, safer community for our safety net population (also satisfying Goals 3, 5 and 7).

**Comment 145: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

Consistency with Community Character and Plans: The Draft EIS addresses this topic in Section 3.12. Its approach is to ignore the word "Plans." Reference is made to my prior Scoping comments on this topic (Draft EIS p. 1036-7/3537) since they were disregarded.

The Project is inconsistent with the Gateway Historic Canal District's plan and building-form rules (see *e.g*., Draft EIS p. 373/3527), which were Council-approved in 2005. The Draft EIS fails to disclose that the Downtown Site lies within the said District (an area bounded by Genesee, State and Columbia Streets and the CSX Tracks).

**Response 145:**

See Response 60.

**Comment 146: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

The Project is inconsistent with the Utica Master Plan, approved by the Council in 2011 and updated in 2016. This and the Canal District plan envision mixed uses and "walkability" Downtown, not a Medical Campus of a few massive buildings surrounded by acres of parking.

**Response 146:**

See Responses 86 and 144.

**Comment 147: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

Per 6 NYCRR 617.7(c)(1)(iv), the material conflicts above are per se a substantive and significant adverse environmental impact that either must be mitigated or avoided. The DEIS fails to propose either. Relocation of the Project to the St. Luke's Campus would avoid these inconsistencies.

**Response 147:**

The Project is consistent with the City's Master Plan and with the Urban Renewal Plan and relocation is unnecessary. See Response 144.

To the extent that the comment focuses on the St. Luke's Campus as an alternative for the Project as proposed, and an analysis of that potential site was conducted. However, utilizing the St. Luke's Campus as the Project Site would not achieve the Project's goals and would entail significant additional costs to upgrade as detailed above. See Responses 26, 28 and 48.

**Comment 148: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

The current occupants and uses of the Downtown Site reflect almost 200 years of official City of Utica decision-making (ranging from zoning and street layout to lot sizes). Applicant's proposal to replace the Columbia-Lafayette neighborhood with a campus of medical buildings, parking facilities, and discontinued streets is inconsistent with these prior decisions. The Gateway Historic Canal District (which covers the Downtown Site) has a plan and design requirements that were adopted in 2005. The Utica Master Plan of 2011 and its 2016 Update, were officially adopted to guide future development within the City. None of these call for a transformative change to the Columbia-Lafayette Neighborhood. Neither the Applicant, nor its consultants, nor the elected/non-elected persons/officials who want the hospital Downtown (see K., infra[38]) have the legal authority on their own to change Utica's official plans, ordinances, *etc*.

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[38] The complete comment letter is included in Appendix B to this FEIS Responsiveness Summary.

The Applicant needs to explain why the existing laws and plans *etc*. were not seen as a "fatal flaw" that would require rejection of the Downtown Site, otherwise its "fatal flaw" analysis appears arbitrary.

**Response 148:**

See Responses 32, 60 and 144.

**Comment 149: Steven Grant, President, LSGU, Letter, 12/27/18:**

Demolition of NRHP listed and eligible buildings violates the goals of the adopted Utica Master Plan, the Gateway Historic Canal District design guidelines, NYS Historic Preservation Plan, and compromise the community character and authenticity of this legacy Erie Canal era neighborhood.

**Response 149:**

See Responses 32, 47, 60, 63, 144 and 157.

**Comment 150: Tyler Kuty, College Student & Resident (New Hartford), Email, 12/27/18:**

The hospital does little to preserve the historic character the neighborhood it is in. Some properties, such as those within the footprint of the hospital, will need to be demolished. Others, like 401 and 500 Columbia St. and 300 Lafayette St., are being demolished to create a parking lot, and 301 Columbia St. is being demolished to create a vacant lot. All of these lots hold some historical character that is important for the community, such as 300 Lafayette St.'s history as the former trolley depot and the only remaining history of the trolly [sic] lines. All of these lots have potential for future use as offices, retail, food malls, or apartments if they were to remain standing. Their demolition could be representatives as the hospitals plan to start off on a new slate and not preserve incorporate itself into the fabric of the current neighborhood. If the hospital chose to locate the proposed medical office building into an existing building like 401 Columbia or 600 State St, it could save some the buildings, preserve some historic character, and potentially reduce the cost to MVHS.

**Response 150:**

The Project Site designated to support the IHC was determined based on several factors including access, vehicular circulation, hospital arrival and drop-off, parking, logistics and service functions. Within the established Project Site, existing buildings were evaluated for reuse potential and historic preservation. As the Project design evolved, MVHS identified a reuse opportunity for the existing MME space, which is part of the Downtown Utica Historic District and MVHS plans to repurpose the building to house the new hospital's CUP.

MVHS understands that preservation of downtown Utica's rich history is important. In addition to the reuse potential of existing buildings, MVHS's team of designers, engineers and urban planners reviewed the potential to preserve and/or incorporate key architectural elements. For those listed and/or eligible buildings that cannot be re-purposed for use in connection with the new hospital, MVHS is evaluating which important architectural features or design elements can be incorporated into the design of the new healthcare campus.

See Responses 32, 47, 60, 62 and 63.

**Comment 151: Tyler Kuty, College Student & Resident (New Hartford), Email, 12/27/18:**

Through the demolition of historic resources and the closing of cross streets, the new MVHS campus creates a superblock and disassociates itself from Downtown and Varick St. With the current existence of superblocks at Kennedy Plaza, the Delta Hotel, and Hanna Park, the creation of another superblock will cement the feel of this area as a suburban setting, not as an extension of Downtown or Varick St. These superblocks are both physical and psychological barriers to pedestrians and development, limiting the walkability of Downtown and the viability of future development in their neighborhood.

**Response 151**:

The MVHS IHC site plan maintains Columbia Street and State Street as downtown City thoroughfares and pedestrian routes. Lafayette Street and Cornelia Street will serve as access to routes to the main entrance of the hospital. Lafayette Street will also serve as a continuous pedestrian route though the MVHS IHC site from Broadway to Varick Street. The only disruption in pedestrian connectivity based on existing conditions to proposed conditions is Cornelia Street from Lafayette Street to Columbia Street. See Response 86.

**Comment 152: Tyler Kuty, College Student & Resident (New Hartford), Email, 12/27/18**:

One parking garage is being built, and while it is not being built by MVHS, it is still part of the plan. MARCH architects should be encouraged to look at a number of innovate parking structure [sic] that limit the negative impact on the community and can include things such as ground level retail or garage beautification efforts.

**Response 152**:

The parking garage being constructed to support the MVHS IHC and other community uses in this area of the City is being planned and designed at the direction of Oneida County and the City of Utica. MVHS and its planning and design team are coordinating with the City and the County on the design elements of the new garage. MVHS recognizes that this is not just an asset for the hospital, but for the community.

**Comment 153: Tyler Kuty, College Student & Resident (New Hartford), Email, 12/27/18**:

Perhaps the most important issue with the hospital is its use of surface level parking. While economics is the clear decider of what type of parking to create, excessive use of surface level parking will have negative effects on the revitalization efforts of Downtown. To rectify this, MVHS should look into repairing or utilizing existing parking structures such as the municipal owned garage at city hall or even the garage at Delta Hotel. If necessary, the hospital should create a revitalization plan that can address the excessive use of parking when the money becomes available to create a second parking garage to reduce the amount of surface level parking.

**Response 153**:

Oneida County and the City of Utica have agreed to build a new 1,550± space parking garage to support the needs of the hospital as well as other parking needs in this area of downtown. Once the decision was made to go downtown, MVHS reviewed potential reuse options of existing garages in comparison to development of a new garage (*i.e.*, asset life left of the buildings, cost to repair and maintain, *etc.*). This evaluation, in addition to the current utilization of the garages, drove the demand for one new garage and additional surface parking.

**Comment 154: Robert S. Derico, RA, Acting Director, DASNY, Letter, 12/27/18**:

The IHC would be constructed within a section of the city earmarked for urban renewal, and the proposed hospital facility would be a significant architectural accomplishment, potentially injecting this area of the city with a new, modern centerpiece derived from the architecture of its neighboring buildings and historical past. The design is to be complemented for its treatment of buildings lower levels, or “podium” as it is called in the DEIS. The articulation of the podium, or “street” levels, keeps the size of the building on a more human scale and is in keeping the sightlines consistent with the historical context of the original buildings.

**Response 154**:

The comment is noted.

**Comment 155: Eleanor R. Lewis, Resident (Boonville, NY), Fax, 12/27/18**:

Why would we want to lose our specialness by turning into a carbon copy of other Mohawk Valley towns? Why would we want to be known for a shiny metal monstrosity blocking access into the city instead of low-key invitation. Please think how much you take for granted all these qualities (concern for quality of life, low key driving, low key and pleasant shopping interactions, friendly businesses, refugee haven) that I found so new and wonderful coming from elsewhere.

**Response 155:**

The Commenter's opinion is noted. However, as noted by Comment 154, "[ ]…the proposed hospital facility would be a significant architectural accomplishment, potentially injecting this area of the city with a new, modern centerpiece derived from the architecture of its neighboring buildings and historical past. The design is to be complemented for its treatment of buildings lower levels, or 'podium' as it is called in the DEIS. The articulation of the podium, or 'street' levels, keeps the size of the building on a more human scale and is in keeping the sightlines consistent with the historical context of the original buildings." See photographs included with Responses 47, 60, 62 and 86.

**Comment 156: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18:**

The intrusion of the proposed nine-story, 165-foot medical institutional building (and associated uses and alterations on the Downtown Site) will stand out as a sore thumb, in marked conflict to the vision espoused for this area in the City's Master Plan and as reflected in regulations pertinent to the City's Historic Districts.

**Response 156:**

See Responses 47, 60, 62, 63, 86, 144 and Comment 154.

**Comment 157: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18:**

Beyond being simplistic and inaccurate, the evaluation of community character (Section 3.12 of the DEIS) is nothing short of a slap in the face to the Columbia-Lafayette community and the long-term vision and policies set forth in the City's plans and regulations relative to the Gateway Historic Canal District of which the Downtown Site is a part.

**Response 157:**

The existing character and community fabric of this area is overstated. As noted in Response 32 and in the photographs provided in Response 47, as well as in the Phase 1A Architectural Inventory (DEIS Appendix E), the Columbia-Lafayette neighborhood is not a vibrant, historically and culturally significant neighborhood. It is a documented blighted area, located in a HUB zone; in a former Empire Zone; designated as a potential EJ area; and in the Urban Renewal Plan Utica Downtown Development Project Area. Despite revitalization of surrounding areas over the years, there has been no proposed improvements in this area for many years.

**Comment 158: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18:**

Notwithstanding wide-scale destruction of buildings (including historic buildings), the putative use of eminent domain to take people's property, broad-based displacement of existing businesses and affordable housing, displacement of charitable facilities serving this environmental justice area, closure of several downtown streets and the intrusion into the area of a massive, nine-story, 165-foot high, modern, institutional building wholly out-of-proportion to and out-of-character with anything in the surrounding environs, the DEIS's evaluation of community character impacts effectively comes down to one paragraph, and, essentially, one line: namely, that while the magnitude of the impacts will be large, "most impacts are expected to be beneficial because [the IHC project] will better position the hospital to serve…the population of Oneida County," as well as create opportunities for secondary economic development. DEIS, Section 3.12. Stated another way, the DEIS takes the unsupported (in fact, bizarre) position that because the IHC project is a hospital, the community is benefitted, notwithstanding that the existing character of the community – including its unique historical character, its existing businesses and existing community fabric – is destroyed. See, *e.g.*, 6 NYCRR 617(c)(1)(iv) & (v) (respectively, identifying conflict with approved community plans/goals and impairment of historic, archeological, architectural, or aesthetic resources or of existing community or neighborhood character as indicators of significant adverse impact).

**Response 158**:

See Responses 32, 47, 60, 62, 63, 86, 144, 157, 165 and 194. See also Comment 154.

**Comment 159: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18**:

Under SEQRA, however, the impact to community/neighborhood character must be evaluated based on adverse impact to the "existing community or neighborhood character" (ECL 8-0105[6], 6 NYCRR 617.2[1]), and, thus, the DEIS wholly misses the mark. See, *e.g.*, Chinese Staff & Workers Ass'n v. City of New York, 68 N.Y.2d 359, 366 (1986) (finding that the potential acceleration of the displacement of local residents and businesses is a secondary long-term effect on population patterns, community goals and neighborhood character that must be evaluated; discussing that such effects on the community in general must be examined in addition to looking to impacts directly on the project site); Village of Chestnut Ridge v. Town of Ramapo, 45 A.D.3d 74, 94 (2d Dep't 2007) ("Community character is specifically protected by SEQRA"). Moreover, there is no exemption in SEQRA for consideration of adverse impacts to community character merely because a project involves health care. In addition to failing to adequately address these community character impacts, the DEIS fails to identify/evaluate a practicable avoidance/mitigation that would eliminate all of these impacts, but still more than adequately provide for Oneida County's health care needs – namely, moving the IHC project to the St. Luke Campus.

**Response 159**:

Section 3.12 of the DEIS addresses the existing character of the community, which has been greatly overstated as set forth in Responses 26, 32, 47, 60, 62, 63, 86, 157, 194 and Comment 154.

Accordingly, as noted in the DEIS, the IHC facility will have a positive impact on the character of the community tying in to revitalization efforts occurring at the NEXUS Center, Harbor Point, Bagg's Square, and the Brewery District to name a few. The IHC will facilitate a safe and walkable connection between the NEXUS Center and Downtown or the Brewery District.

With respect to that portion of the comment that focuses on the St. Luke's Campus as an alternative for the Project as proposed, an analysis of that potential site was conducted. However, utilizing the St. Luke's Campus as the Project Site would not achieve the Project's goals and would entail significant additional costs to upgrade as detailed above. Even if the St. Luke's site did satisfy MVHS's objectives, the impacts on land with respect to construction would be similar for either location. See Responses 26, 28 and 48.

**Comment 160: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18**:

In addition to the above, the DEIS fails to properly identify the special regulations applicable to the Downtown Site and the special policies, goals and implementation strategies pertaining to same. The DEIS states that the Downtown Site is in the Central Business District, but fails to substantively address that the Downtown Site is in the Gateway Historic Canal District to which particular Design Standards apply, as do the related policies, goals and implementation strategies set forth in the City of Utica's Master Plan (October 5, 2011) ("City Master Plan"). (And, as noted above, the Downtown Site also includes a portion of the Downtown Genesee Street Historic District, which is listed on the State and National Register of Historic Places, as well as a host of other eligible properties.)

**Response 160**:

See Responses 26, 32, 60, 63 and 144.

**Comment 161: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18:**

As discussed in the City Master Plan, a revitalization plan was completed in 2003 for the Gateway District. As a result of that plan, the City Common Council adopted a form-based zoning code in 2005 to regulate development in the Gateway District. "The original intent behind the form-based code was the preservation of the historic feel of the district." City Master Plan, p. 17 (emphasis added). "The form-based code acknowledges the significant architecture that remains in the Gateway area and provides for a mix of uses compatible with the historic development." City Master Plan, p. 63 (emphasis added). The demolition of architecturally significant buildings, as proposed in the DEIS, is the antithesis of "preservation" or being "compatible" with historic development.

**Response 161:**

See Responses 60, 62, 63 and 144.

**Comment 162: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18:**

The City Master Plan also sets forth a discussion of general vision, as well as specific goals and policies, for downtown development, cultural/historic resources, and historic and preservation districts, all of which are not considered in the DEIS, and all of which are violated by locating the IHC on the Downtown Site.

**Response 162:**

See Responses 32 and 144.

**Comment 163: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18:**

Illustrative excerpts from the City Master Plan follow:

Downtown Development

- City Master Plan, p. 17 – "The buildings that remain within the [Gateway] District are some of the oldest in the City and are architecturally significant. With adherence to the strict design standards [of the form-based code], new construction will echo the form and details of the older architecture." (Emphasis added.) This section also discusses extending the boundaries of the form-based code to more of downtown in order to "preserve and enhance the architecture of downtown."

**Response 163:**

See Responses 32, 47, 60, 62, 63 and 144. See also Comment 154.

**Comment 164: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18:**

City Master Plan, p. 36 – "Through the master planning process, Utica residents and business leaders have described a vision for the City's future that builds on the architectural character and diversity of downtown. For many in Utica, the success of downtown is the foundation for success within the City's other neighborhoods. This vision is one that enhances the quality of life for existing residences as well as creates an attractive place for new residents, visitors and businesses. *Boosting historic and cultural resources located in downtown will serve to help strengthen Utica as a more exciting place for people and businesses."* (Emphasis added.)

**Response 164:**

See Responses 60, 62, 63 and 144 and Comment 154.

**Comment 165: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18:**

City Master Plan, pp. 37-40 – This section discusses new commercial opportunities for downtown (including retail, restaurants, and residential), stating that the City is well-positioned to capture demand for downtown living, based, in part, on the arts, history and culture.

**Response 165:**

The American Hospital Association analyzes the economic impacts of hospitals annually. In 2018, the American Hospital Association found that hospitals purchase $903 billion in goods and services from other businesses. The goods and services hospitals purchase from other businesses create additional economic value for the community. With these "ripple effects" (see Figure 32) included, each hospital job supports about two additional jobs, and every dollar spent by a hospital supports roughly $2.30 of additional business activity. Overall, hospitals support 16.5 million total jobs, or one of 9 jobs, in the U.S. and support almost $3.0 trillion in economic activity (https://www.aha.org/statistics/2018-06-06-hospitals-are-economic-drivers-their-communities-2018).

The IHC will bring more than 3,500 employees and medical staff downtown. The new facility will also attract new medical staff, some of whom may be interested in living in downtown Utica contributing further towards the economic redevelopment of the area. See Response 144.

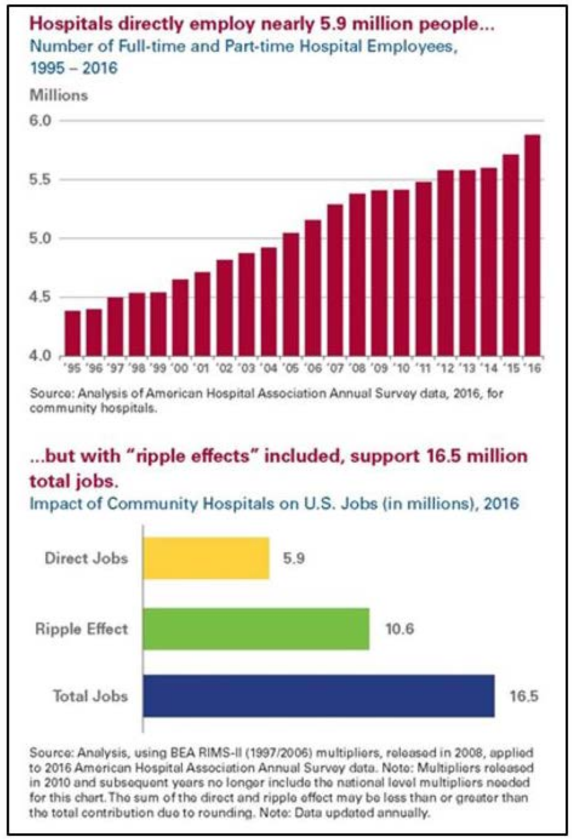


**Figure 32. Hospital-Related Economics "Ripple" Effects**

**Comment 166: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18:**

City Master Plan, p. 44 – This section discusses strategies for downtown development, namely, to promote residential and mixed-use development downtown "consistent with Utica's heritage and architecture" via, among other means, (1) utilizing public money to rehabilitate historic buildings and buildings that contribute to Utica's historic character; and (2) developing design standards that complement and enhance predominant uses and architecture in each of the downtown neighborhoods and sub-districts.

**Response 166:**

See Responses 60, 62, 63, 86, 144 and 165 and Comment 154.

**Comment 167: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18:**

Historic Preservation – Arts/Cultural and Historic Resources

- City Master Plan, p. 51 – "The City of Utica has something many other communities around the nation want – historic character and a strong sense of authenticity. Since appearance is fundamentally linked to economic success, these urban attributes are fundamentally tied to the City's ongoing revitalization effort. The City recognizes this and *wants to protect these very important assets*." (Emphasis added.)

**Response 167:**

See Responses 32, 47, 60, 62, 63 and 144.

**Comment 168: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18:**

Historic Preservation – Arts/Cultural and Historic Resources

- City Master Plan, p. 53 – This section discusses cultural and historical assets and impact on travel/tourism, stating that "Utica's cultural and historic assets are key features to attracting visitors to the City and enhancing the quality of life offered to its residents." This section also notes findings from Oneida County Tourism study, stating that the study's findings "are a compelling reason to continue to *build on the City's recreation, arts, cultural and historic amenities*." (Emphasis added.)

**Response 168:**

See Responses 32, 47, 60, 62, 63 and 144. The IHC will have no impact on most of the City's cultural and historic assets. Instead, the IHC will revitalize a historically blighted and under-developed area of the City in a manner consistent with several goals and objectives of the Master Plan.

**Comment 169: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18:**

Goals and Strategies for Historic Preservation, including the Gateway District

- City Master Plan, p. 55 – Goal 4: formalize protection, and enforcement of that protection, for historic buildings, historic districts and historic neighborhoods; expand historic districts, and enforce standards applicable to them.

**Response 169:**

See Responses 32, 47, 60, 62, 63, 144, 157 and 168.

**Comment 170: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18:**

Goals and Strategies for Historic Preservation, including the Gateway District

- City Master Plan, p. 63 – This section notes the objective of the form-based zoning code for Gateway District, stating that such code acknowledges the significant architecture that remains in the Gateway area and provides for a mix of uses "*compatible with historic development*." (Emphasis added.)

**Response 170:**

See Responses 32, 47, 60, 62, 63, 144, 157 and 168.

**Comment 171: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18:**

Goals and Strategies for Historic Preservation, including the Gateway District

- City Master Plan, pp. 65-66 – This section discusses goals for brownfield sites, including in the Gateway District: (1) Goal 1, attracting new businesses and industry; (2) Goal 2, facilitate retention and expansion of local business and individuals; (3) Goal 3, create more sites for business development in the Gateway District; (4) Goal 7, expand and capitalize on Utica's diverse historic and cultural fabric.

**Response 171:**

Pages 65-66 of the City's Master Plan set forth Goals and Strategies for Business and Technology. The IHC satisfies several of the goals and strategies found on pages 65-66 of the Master Plan (see Response 162). The IHC will diversify the City's economy and attract new businesses, as well as attracting the retirement population to downtown Utica (Goal 1, p. 65). The IHC assembles properties to create a larger development opportunity (Goal 3, p. 65). The IHC is a not-for-profit initiative that enhances employment opportunities (Goal 5, p. 66), and will attract new, talented young professionals to the City (Goal 6, p.66). See Responses 144 and 165.

**Comment 172: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18:**

The DEIS does not even acknowledge, let alone address, the many material conflicts that use of the Downtown Site for the IHC poses to the City Master Plan and related plans and regulations. Notably, "material conflict[s] with a community's current plans or goals as officially approved or adopted" are strong indicia of significant adverse environmental impacts that must be mitigated or avoided. 6 NYCRR 617.7(c)(1)(iv). The same is true for impairment of the character or quality of important historical, archeological, architectural or aesthetic resources. 6 NYCRR 617.7(c)(1)(v).

**Response 172:**

There is no conflict with the City Master Plan and related plans and regulations. See Responses 32, 47, 60, 62, 63, 144, 165 and 171.

**Comment 173: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18:**

Indeed, the material conflicts with the City's plans/goals, and the significant adverse impacts on historic resources and community character, resulting from use of the Downtown Site for the IHC is further underscored by commentary from the Landmarks Society of Greater Utica earlier in this process. That commentary includes the following conclusions:

(1) large-scale, multi-block demolition of a significant segment of the downtown area…destroys the fabric, character and sense of place that defines the uniqueness of what makes Utica what it is;

(2) the buildings that would be lost represent a lost opportunity for small-scale structures where ground floor commercial uses would complement upper floor residential uses in a walkable, urban setting, which would be in keeping with the tenets of the National Trust of Historic Places;

(3) the IHC located at the Downtown Site would be "a huge, iconic structure surrounded by a sea of parking…[which] would be the antithesis of what makes Utica unique;" and

(4) locating the IHC on the St. Luke Campus is far more suitable than locating it on the Downtown Site.

And, these conclusions and concerns relative to significant deleterious, irreversible impacts on historic resources (which the Applicant and its supporters have ignored) are reiterated and further discussed in the comment letter of the Landmarks Society of Greater Utica, dated December 27, 2018 (Exhibit B hereto)[39] (noting, inter alia, impacts to historic resources in historic district on National Register; inadequate SHPO process; violations of City Master Plan, Gateway Historic Canal District design guidelines, New York State Historic Preservation Plan; and impacts to community character and authenticity of the Erie Canal era neighborhood).

[39] The complete comment letter is provided within Appendix B to this FEIS Responsiveness Summary.

The failure of the DEIS to identify these conflicts, substantially assess them, and attempt to mitigate them renders the DEIS fatally defective.

**Response 173:**

See Responses 32, 47, 60, 62, 63, 86, 144, 165 and 171.

With respect to that portion of the comment that focuses on the St. Luke's Campus as an alternative for the Project as proposed, an analysis of that potential site was conducted. However, utilizing the St. Luke's Campus as the Project Site would not achieve the Project's goals and would entail significant additional costs to upgrade as detailed above. Even if the St. Luke's site did satisfy MVHS's objectives, the impacts on land with respect to construction would be similar for either location. See Responses 26, 28 and 48.

### 3.16 SOLID WASTE MANAGEMENT

**Comment 174: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

Impacts on Solid Waste Management: The Draft EIS addresses this topic in Section 3.13. It acknowledges possible impacts during the construction phase from disposal of impacted soils and groundwater and hazardous building materials among the Construction and Demolition debris. With a decreased need to demolish buildings with unknown hazards and an historically less-impacted site, relocation the Project to the St. Luke's Campus should be considered in mitigation of this environmental impact.

**Response 174:**

The concerns raised in this comment would be the same even if the Project were relocated to St. Luke's Campus. The St. Luke's building is over 60-years old and likely contains ACM and LBP that would need to be handled accordingly during any demolition, renovation or disposal activities.

The comment focuses on the St. Luke's Campus as an alternative for the Project as proposed, and an analysis of that potential site was conducted. However, utilizing the St. Luke's Campus as the Project Site would not achieve the Project's goals and would entail significant additional costs to upgrade as detailed above.

See Responses 26, 28 and 48.

### 3.17 EFFECTS ON THE USE AND CONSERVATION OF ENERGY

No comments were submitted on this topic.

### 3.18 CUMULATIVE IMPACTS

**Comment 175: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

Cumulative Impacts: The Draft EIS addresses this in Section 5, out of context with the areas of environmental concern and with little information. It dismisses the "U-District" as "speculative," when it is not, considering that a building has already been demolished in preparation and its frequent coverage in the press. The referenced CSO project only tells us what it is but has yet to be placed into context with this Project because the EIS lacks information on the routing of Project waste water, as already pointed out. Cumulative Impacts need to be addressed under each relevant area of environmental concern.

**Response 175:**

See Response 125.

Referenced CSO Control Project A9.2 constructed a stormwater relief sewer that redirects previously separated stormwater to Ballou Creek, approximately 4,200-feet to the east of the Project Site. The effect of A9.2's stormwater redirection is to remove stormwater from the City's combined sewer known as the Railroad Interceptor Sewer, thereby increasing its capacity. Wastewater from the downtown IHC Project will be routed through the State Street Trunk Sewer, to the Railroad Interceptor Sewer. It is anticipated that wastewater from the NEXUS project would also be conveyed to the Railroad Interceptor Sewer. Capacity in both the State Street Trunk Sewer and Railroad Interceptor have been addressed in a previous response (see Response 50).

**Comment 176: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

Relocation of the Project to the St. Luke's Campus must also be considered in the EIS in mitigation of Cumulative Impacts as there are no known large-scale projects in its vicinity that could impact the Project.

**Response 176:**

The comment focuses on the St. Luke's Campus as an alternative for the Project as proposed, and an analysis of that potential site was conducted. However, utilizing the St. Luke's Campus as the Project Site would not achieve the Project's goals and would entail significant additional costs to upgrade as detailed above.

See Responses 26, 28 and 48.

**Comment 177: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

The Draft EIS deals with the future of the St. Luke's and St. Elizabeth's Campuses by 'kicking the can down the road' – *i.e*. reuse of facilities to be abandoned is still being studied. Given the sizes of each campus any use change is likely to have a significant impact on their respective neighborhood, and would be impacts of the Project because the Project is causing the abandonment. The Draft EIS' vagueness is unacceptable in a community that has had to deal for over 20 years with the blight caused by the State's abandonment of hospital facilities on the Psychiatric Center Campus. One building has only recently been leveled after years of broken windows. The multistory, hulking Brigham Building still sits empty on the corner of Noyes and York Streets, dragging on the neighborhood. Simply put, there does not appear to be any market for abandoned hospital buildings, so "adaptive reuse" of these facilities sounds speculative. The EIS must propose mitigation measures that assure that Applicant's abandonment of facilities will not create new blight in South Utica and New Hartford. As mitigation, consideration should be given to requiring Applicant to post a performance bond to fund continued maintenance and/or demolition of abandoned facilities, if they are not repurposed within an appropriate specified time period.

**Response 177:**

Alienation and reuse of State property is often difficult and cannot be used as a basis to opine what will happen with respect to the future of the St. Luke's and SEMC campuses.

In regard to the St. Luke's and SEMC campuses, MVHS understands that it is in their best interest to maintain buildings under their ownership. Moreover, certain uses will remain on both campuses as detailed above (see Response 9). Accordingly, it is MVHS's intention to facilitate the adaptive reuse of vacated facilities. The DEIS (Section 8.2) identified the process by which MVHS, in conjunction with the Community Foundation, has solicited expertise to support the redevelopment of each campus. Since the publication of the DEIS, MVHS has retained the services of CHA to provide the required support. CHA has proposed the following services:

- Define adaptive reuses
- Assess market feasibility of such uses
- Complete feasibility analysis
- Complete zoning analysis and schematic plan preparation
- Perform Phase I ESAs
- Provide Preliminary conditions assessment
- Develop conceptual cost estimating

MVHS will also work with the Community Foundation and CHA to establish process in which MVHS will work with the neighborhood to re-develop the MVHS-owned campuses. MVHS believes that full scale demolition of the existing campuses is financially unfeasible, and that given the different building ages and types, adaptive reuse would be a better alternative.

These steps will minimize the impacts from vacating the St. Luke's and SEMC facilities until an appropriate reuse is identified. Once a redevelopment alternative is selected, it will likely be subject to its own environmental process which will be no less protective of the environment.

**Comment 178: Michael Galime, City of Utica Council President, Letter, 12/27/18:**

This proposal references other projects and proposals that are either incomplete and/or have not proceeded with SEQRA:

- U-District is a point example of a reference in need of review.

**Response 178:**

See Response 125.

**Comment 179: Michael Galime, City of Utica Council President, Letter, 12/27/18:**

It appears that this proposal is part of a larger initiative largely represented by the MV500 application that was filed in 2015 as part of a NYS State funding competition.

**Response 179:**

The MV500 application was a proposal submitted to the state by the region to get money for development in the City. It included money for items that the County Executive is proposing for the NEXUS center and sports complex enhancements. This was a competitive application for grant money that could be applied throughout the State. Oneida County did not win the award. The IHC Project was mentioned in the application as part of the growth and development occurring in the City and noted that the MV500 would complement that growth. However, the proposed IHC is a separate and independent project that is not in any way tied to the MV500 application. Nevertheless, cumulative impacts between the IHC and the NEXUS Center have been considered in the FEIS to the extent possible given the lack of any submitted NEXUS-related applications or availability of detailed information from the NEXUS project sponsor.

**Comment 180: George Mitchell, City of Utica Planning Board, Email, 12/27/18:**

**The existing structures of St. Elizabeth's Hospital:** I continue to see this as a significant potential impact as a result of the proposed project. Unlike the structures at the current St. Luke's campus, the SE campus buildings, if not addressed well, will impact city neighborhoods and arguably some of the best neighborhoods within our city limits. This should not be taken lightly, or only left to be regulated by current code restrictions. I see this as a special situation given that these current facilities are expansive and border very close to the surrounding homes and neighborhoods. Without clear plans or guidelines for use and maintenance of these facilities, the risk of blight is real and the negative impact to the neighboring homes will most assuredly diminish the quality of life in those neighborhoods and to the city as a whole. I would like to discuss how we can work with MVHS and also within our legal constraints, to guarantee an excellent outcome for these existing facilities for the betterment of all. The draft EIS does not even begin to treat this with the degree of serious impact this site can have on our community. We must insist on more here.

**Response 180:**

As stated in Response 9, the SEMC site will be converted into an outpatient extension clinic to be known as "St. Elizabeth Campus". MVHS prefers that this site maintain its current Permanent Facility Identifier (PFI) Number.

Pursuant to the CON application, the following programs and services will remain on the St. Elizabeth site, with no construction or relocation necessary:

- Sleep center services (Mohawk Valley Sleep Disorders Center)
- The College of Nursing
- The cardiac and thoracic surgery-related services (all of which are medical-only services; no surgical services will be provided at this site)
- Primary care and laboratory patient service center (PSC) services.

These programs and services are not currently in the hospital building. Specifically, programs currently located in the College of Nursing Building (*e.g.*, Sleep Lab, administrative services), and the physician offices in the Marian Medical Building will remain on the SEMC campus.

MVHS understands that it is in their best interest to maintain buildings under their ownership (at FSLH and SEMC). That interest is supported by MVHS's intention to facilitate the adaptive reuse of vacated facilities on each campus. The DEIS (Section 8.2) identified the process by which MVHS, in conjunction with the Community Foundation, has solicited expertise to support the redevelopment of each campus. Since the publication of the DEIS, MVHS has retained the services of CHA to provide the required support. See Response 177.

**<u>Comment 181: Michael Galime, City of Utica Council President, Letter, 12/27/18</u>:**

The St. Luke's Campus is said to be marketable to private development, however, within the Oneida County Local Development Corporation (OCLDC) application, as of February 2018, the entire campus is not being decommissioned. Who will maintain the property to insure it is not depreciating and left to become decrepit post abandonment, or when partially abandoned.

**<u>Response 181</u>:**

See Responses 177 and 180.

**<u>Comment 182: Michael Galime, City of Utica Council President, Letter, 12/27/18</u>:**

Is there a known plan to market and maintain the property at St. Elizabeth's? Allowing this facility to wain while vacant may impact the overall status of upper Genesee St. Who will maintain the property to insure it is not depreciating and left to become decrepit post abandonment, or when partially abandoned?

**<u>Response 182</u>:**

See Response 180.

**<u>Comment 183: Michael Galime, City of Utica Council President, Letter, 12/27/18</u>:**

Many outpatient facilities and medical offices have located within the St. Elizabeth's area. How much of the surrounding area would be left vacant if there is a general push to move all ancillary medical business downtown?

**<u>Response 183</u>:**

See Response 9, which clarifies operations MVHS intends to relocate from its existing campuses. To the extent the comment relates to medical businesses not owned or operated by MVHS, it would be speculative to assume that those entities would move from their present location.

**<u>Comment 184: Michael Galime, City of Utica Council President, Letter, 12/27/18</u>:**

The greater Utica area will be left with three empty hospital sites. The state psychiatric facility, St. Elizabeth's, and St. Lukes. Is this scoped proposal the best use of the downtown developable commercial active property, while leaving behind facilities that are currently in use empty, and have no scoped reuse and/or rehabilitation plan. In exchange for a few empty buildings that have commercial potential downtown we are creating multiple large empty facilities with no current commercial prospects, throughout the region.

**Response 184:**

See Responses 48, 177 and 180.

**Comment 185: Stephen N. Keblish, Jr., Resident (Utica), Email, 12/27/18:**

Decommissioning SEMC and FSLC – A known and necessary component of this project is the decommissioning of two existing hospitals. While the DEIS tries to speculate on reuse plans, it does not address at the minimum what the impacts will be to the two campuses and the surrounding area should the two main facilities become dormant, especially as it relates to their integration into and removal from existing community, energy, utility, transportation, and economic networks and systems.

**Response 185:**

See Responses 9, 177 and 180.

**Comment 186: Stephen N. Keblish, Jr., Resident (Utica), Email, 12/27/18:**

The "U" District – The DEIS makes reference to the "U" District while discussing the benefits of the project. While the actions proposed under the "U" District have not yet undergone a SEQR, it is possible from the references made that elements of this project are predicated, planned, or integral to that project. Since that plan is not approved, it is important not to let elements of that proposal be "smuggled" into this one until that plan is approved in its entirety. Since both projects may be constructed simultaneously (including the NEXUS center, which this DEIS does address), it may be necessary to evaluate the collective impacts of both projects before proceeding with or approving either.

**Response 186:**

See Response 125. The proposed IHC is a separate and independent project that is not, in any way, tied to the "U" District.

SEQRA requires that the Lead Agency review the "whole action" so that interrelated or phased decisions should not be reviewed without consideration of the consequences for the whole action. However, the IHC and the "U" District are two separate and independent projects. There is not a common reason for each segment being completed at or about the same time. The projects are under different ownership and control. The projects are not part of an overall plan and completion of one is not dependent on the other and does not commit the agency to approve the other project.

Nevertheless, cumulative impacts between the IHC and the NEXUS Center have been considered in the DEIS to the extent possible given the lack of any submitted NEXUS-related applications or availability of detailed information from the NEXUS project sponsor.

**Comment 187: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18:**

The DEIS is woefully inadequate relative to its evaluation of cumulative impacts – namely:

1. Failure to include evaluation of impacts from the Nexus Project, and

2. Failure to evaluate impacts from the planned alteration of current use and re-use of the St. Luke's and St. Elizabeth's facilities/campuses.

SEQRA requires that the EIS consider all reasonably related short-term and long-term impacts, cumulative impacts and other associated environmental impacts. ECL 8-0109(2); 6 NYCRR 617.9(b)(5)(iii)(a). Here, the DEIS's failure to consider cumulative impacts from the afore-mentioned project plans renders the DEIS fatally defective. *See generally,* DEIS, Section 5 and 8.2; *see also Sun Co., Inc. v. City of Syracuse Industrial Dev. Agency,* 209 A.D .2d 34 (4111 Dep't 1995).

Section 5.1.1 of the DEIS gives short shrift to impacts from the Nexus Project/U District, stating that the project is currently speculative and, therefore, need not be addressed in the DEIS. This is simply untrue. Action has already been taken to make way for the Nexus Project (*i.e.*, the recent demolition of the Tartan Textile Building), and State funding for the Nexus Project is imminent. Therefore, impacts associated with the Nexus Project (including, but not limited to, traffic/transportation, waste water/storm water, noise) are cumulative impacts that must be identified and evaluated in the DEIS. *See, e.g., Save the Pine Bush v. City of Albany,* 70 N.Y.2d 193, 206-07 (1987) (finding that the failure to consider cumulative impacts of other pending projects for the subject area violated SEQRA and invalidated ordinance approving the requested zoning change).

**Response 187:**

See Responses 9, 125, 177, 180, and 186.

**Comment 188: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18:**

Likewise, the planned changes to operations at St. Luke's and St. Elizabeth's (which are discussed in DEIS Appendix A [Certificate of Need Application]) and the proposal to re-use parts of these properties for other types of community-related purposes need to be (but were not) evaluated as part of the cumulative impact analysis in the DEIS. *See* DEIS Section 8.2; *see also Sun Co., Inc.,* 209 A.D .2d at 46-49 (stating that the lead agency must consider the cumulative effect of other simultaneous or subsequent actions that are included in any long-range plan of which the action under consideration is a part; invalidating agency's condemnation of property for development of a shopping center where agency limited the EIS to the shopping center and thereby impermissibly failed to assess the environmental impact of other development projects contemplated by the agency's master development plan for the area); *Teich v. Buchheit,* 221 A.D.2d 452 (2d Dep't 1995) (finding SEQRA's anti-segmentation principle violated where agency failed to consider impacts from a proposed parking lot as part of the overall development plan for the hospital expansion; observing that such was part of the certification of need application for the hospital's long-range plans). Given that the DEIS and the Certificate of Need for this project plainly acknowledge a significant change/downsizing of operations at St. Luke's and St. Elizabeth's, as well as re-use of these campuses for other purposes, such is part of the IHC project proposal and is required to be (but was not) evaluated in the DEIS. *See also* Exhibit B hereto (Comments from the Landmarks Society of Greater Utica, noting that the St. Elizabeth Campus is eligible for listing on the National Register of Historic Places and located in Utica's Scenic & Historic Preservation District, thus requiring local review and approval by the Scenic & Historic Preservation Commission prior to any exterior alterations or demolition of buildings); Utica Zoning Code, chapter 2-29.

**Response 188:**

See Responses 9, 125, 177, 180, 185 and 186. There are no prescribed standards, but SEQRA does not require that every conceivable impact be considered. Review must be limited to impacts that are probable, not speculative. When information on future impacts is too speculative, it is proper to consider those impacts as part of a future review that would be no less protective of the environment.

**Comment 189: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18:**

Because the DEIS fails to address these matters, the SEQRA process should be immediately suspended, and a supplemental DEIS is required, subject to full SEQRA procedures. Absent that, were the Board to accept a final

EIS without these evaluations and issue its approval for the IHC at the Downtown Site, the Board would have violated SEQRA's anti-segmentation principle. *See, e.g., Sun Co., Inc., supra; Teich, supra; see also Segal v. Town of Thompson,* 182 A.D.2d 1043 (3d Dep't 1992) (holding that SEQRA's anti-segmentation principle required an agency contemplating the establishment of a sewer district to consider the environmental impacts of any residential development made more likely by the creation of the district).

**Response 189**:

Cumulative impacts should be limited to consideration of reasonably foreseeable impacts, not speculative ones. The DEIS evaluated reasonably foreseeable cumulative impacts in Section 5. See also Responses 125, 177, 180 and 186. There has been no impermissible segmentation.

## 3.19 UNAVOIDABLE ADVERSE ENVIRONMENTAL IMPACTS

**Comment 190: Frank Montecalvo, Attorney at Law, Letter, 12/26/18**:

The Draft EIS addresses this topic in Section 6. It relates several short term impacts arising from construction, and several long-term impacts, specifically (1) demolition of existing buildings within the project footprint (including relocation of existing businesses), (2) new traffic patterns due to permanent closure of existing roads (3) periodic noise events from emergency helicopter access/egress and (4) modified viewshed. The language chosen hides the significance of the unavoidable impacts. For example, “change in traffic patterns” neither reflects the decline in traffic LOS at key intersections, nor the destruction of important redundancy in the Street Grid as discussed at H above. The Draft EIS fails to acknowledge that the nature and significance of these impacts are tied to the site chosen, and that these short and long-term impacts could be minimized or entirely avoided by relocating the Project to the St. Luke’s Campus.

**Response 190**:

The DEIS evaluates unavoidable impacts in Section 6. While the Commenter does not agree with the conclusions reached, he offers no evidence or scientific analysis to refute the conclusions. SEQRA requires the Lead Agency to balance the benefits of a project against its unavoidable environmental risks, but it does not require the Lead Agency to act in any particular matter. See *Coalition against Lincoln West, Inc. v. New York, 94 AD2d 483 (1st Dept. 1983).* Rather SEQRA leaves the Lead Agency with room for a reasonable exercise of discretion. *Id*.

**Comment 191: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18**:

The significant unavoidable, unmitigable adverse impacts that the DEIS actually does acknowledges could be readily avoided by selecting an alternative location, namely, the St. Luke Campus (which is owned by the Applicant).

**Response 191**:

See Responses 26, 28 and 48.

St. Luke’s does not meet the goals and objectives of MVHS. The Applicant’s preferred site for a new integrated healthcare campus was, and still is, in downtown Utica.

## 3.20 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

**Comment 192: Frank Montecalvo, Attorney at Law, Letter, 12/26/18**:

Irreversible and Irretrievable Commitment of Resources: The Draft EIS addresses this topic in Section 7. The wording used attempts to minimize the significance of what will be lost. The EIS needs to acknowledge that a grid of public infrastructure (streets, sidewalks, sewers, utilities) that can support the kind of private, taxpaying, incremental redevelopment of Utica that is contemplated by the City’s official plans will be irretrievably lost. The new Police Garage will be taken. Numerous existing businesses with their associated jobs, income and the personal wealth of their owners will be lost. Utica will lose perhaps its best site (as part of the Central Business District) for business startups and growth, especially at a time that the immediately adjoining areas (Baggs Sq. and Varick St.) are becoming filled. The property and sales taxes generated here will be lost. While the Draft EIS in its next section paints a pie-in-the-sky picture of a future filled with economic development, reality is that the hospital and its parking facilities will take over the very places where economic development would occur, and destroy the personal wealth of the very entrepreneurs positioned to make it happen, the ones in business there now, as history of urban renewal projects in Utica has shown.

The EIS should also make the same analysis for the St. Luke's Campus. It would undoubtedly conclude that relocating the Project to that site would minimize irreversible and irretrievable commitment of resources.

**Response 192**:

See Responses 4, 26, 28, 32, 47, 48, 60, 62, 63, 76, 86, 144 and 194.

While the main purpose of identifying and mitigating impacts is to limit or control adverse impacts, it is relevant to also identify likely beneficial effects of the proposed action. These considerations will be used by decision-makers in balancing positive and negative effects in the Findings Statement. Accordingly, inclusion of positive impacts to "minimize" negative impacts is not only proper, but required. Although the Commenter disagrees, his conclusions are his opinions. As noted previously, this area has been targeted for economic development for almost 30-years, but the area is still identified as a HUB zone; is in a former Empire Zone; is designated as a potential EJ area; and in the Urban Renewal Plan Utica Downtown Development Project Area. Despite efforts to redevelop this area and despite revitalization projects in Bagg's Square, Harbor Point and Varick Street, there has been little development in this area for 20+ years.

## 3.21 GROWTH INDUCING ASPECTS

**Comment 193: Linda K. Paciello, Ph.D., Resident (New Hartford), Letter, 12/18/18**:

The tax situation has been minimized greatly. There is mention of all the new businesses that having the hospital in this area will create. I disagree. There has been no increase in businesses around the current three hospitals.

Furthermore, exactly on what land or buildings to they think these new buildings will be located?

How many jobs will be lost when you consolidate three buildings into one facility?

**Response 193**:

This is a purely economic impact rather than an environmental impact. See *Bell Atlantic Mobile of Rochester L.P. v. Town of Irondequoit, 848 F. Supp. 2d 391, 400 (WDNY 2012)* (speculative environmental loss such as a concern for property values is not an environmental factor under SEQRA); *Nash Metalware Co. v. Council of the City of New York, 14 Misc.3d 1211(A); 2006 N.Y. Misc. LEXIS 3940 (Sup. Ct. NY Co. 2006)* (potential impacts from relocation of businesses not relevant when owner is vacating under terms to which it consents).

The Project is only consolidating two hospitals into one facility. This will reduce full time employment by approximately 184. On average, MVHS turns over about 650 positions per year and MVHS believes that the majority of these jobs will be reduced through attrition, thereby minimizing any potential impact. In addition, development of the MOB, together with secondary growth associated with the Project will further minimize the reduction in employment.

In addition, see Responses 194 and 195.

**Comment 194: Frank Montecalvo, Attorney at Law, Letter, 12/26/18**:

The Draft EIS addresses this topic in Section 8 with a lot of forward looking rosy assumptions including tax figures based on smoke-and-mirrors. There is practically no substantive evidence, much less than a reasoned elaboration, to back up the claims.

As requested during Scoping (Draft EIS p. 1038/3527), this section of the EIS should include consideration of "negative growth" with associated adverse impacts (the spread of blight and the wasting of community resources).

Currently available information suggests that the Project, when completed, will exacerbate the region's negative population trends through the destruction of jobs. Hospital jobs will be reduced by at least 184 (Draft EIS pp 589-90/3527, if the Applicant's numbers are believed), due to the reduction in authorized hospital beds from 571 to 373 (see the NYS Department of Health's Needs Analysis). Most non-hospital jobs (with no attempt to even count them in the Draft EIS) associated with the approximately 40 entities currently within the Downtown hospital site will disappear based upon the 90%+ closure rate experienced by Rome, NY businesses previously in the footprint of its Ft. Stanwix urban renewal project. The Project's occupation of 25 Central Business District Acres, primarily for parking, not only will remove this acreage from private development but also drive up the cost of remaining CBD property by restricting supply. That will discourage new startups and the creation of new jobs. Meanwhile the City of Utica will be burdened with providing municipal services to new facilities that do not generate taxes, raising taxes for everyone else and making Utica less attractive for investment.

Simply put, the Project will replace an urban neighborhood that contributes to its upkeep with suburban sprawl that will not. The EIS needs to not only address these concerns but also acknowledge that they could be minimized by placing the new facility on the St. Luke's Campus.

**Response 194:**

As noted in the DEIS, the area is already blighted. See Responses 26 and 32.

It should also be noted that following the transmission of the option agreements, MVHS actively negotiated with many of the property owners to address concerns regarding the appraised value, relocation costs, timing of relocation, and environmental indemnity. Although compliance with the Federal Uniform Relocation Assistance and Real Property Acquisition Act is not required for this Project, MVHS agreed to pay relocation expenses to a number of property owners on a case-by-case basis based on the level of assistance needed to cover actual, reasonable and necessary moving expenses. Since most of the properties were not specifically constructed for the current use and due to the low-quality space at issue, the impacted businesses should be able to find similar replacement property in the surrounding area. Moreover, construction of the MOB and other secondary growth opportunities will minimize any potential impacts from the reduction in employees. Accordingly, there is no basis for the comment that there will be a 90% closure rate of the existing businesses.

Based on the City's assessment rolls, the properties to be acquired for the IHC pay a little over $115,000 to the City in real property taxes annually. Some of the properties are already exempt or in arrears on their tax payments. Others are vacant or dilapidated resulting in low assessments for the entire area. Moreover, there has been no new construction or significant expansions in the Project footprint for more than 20-years. The Project area has been depressed for years and has not been redeveloped despite programs such as the Urban Renewal Plan, the Gateway Canal Overlay District, the 2011 Master Plan, and development in nearby areas of Bagg's Square, Harbor Point, and Varick Street.

Although the hospital and the parking garage would be tax exempt, the medical office building would be fully taxable. Medical office space near hospital centers typically sells for $100 to $150 per square foot. Accordingly, assuming that the Project adds 80,000 square feet of taxable medical office space, the Project is projected to add $8,000,000 to $12,000,000 in assessed value to the tax rolls. The City's 2019 property tax rate was 27.091643 per $1,000 in assessed value. As a result, the IHC would likely result in the payment of $216,733 to $325,099 annually in real property taxes by the physicians' office building, and approximately $106,500 in additional annual sales tax revenues during construction and approximately $191,500 in additional annual sales tax revenues following construction.

**Table 3. Estimated Revenues**

| Estimated Revenues | Description | | Amount/year |
|---|---|---|---|
| ***Medical Office Building*** | *80,000 GSF* | *$8M to $12 M AV $27.091643/$1,000* | *$216,733 to $325,099* |
| ***Taxable Sales – Construction Period (3 Yrs)*** | *$15 M to $17 M over 3 years* | *Midpoint: $16 M used, which generates $320,000 to City of Utica over 3 Yrs.* | *$106,667* |
| ***Taxable Sales – 3,500 employees downtown Utica (post-construction)*** | *3,500 employees X $15/day in taxable spending X 365 days = $19,162,500. 50% assumed to be net increase in taxable sales within City.* | *$9,581,250 in annualized new spending within Utica X 2% generates $191,625 in sales tax for Utica.* | *$191,625* |

Accordingly, the City will receive approximately $100,000 to $200,000 more annually in real property taxes and between $106,667 and $191,625 more annually in sales taxes following construction and operation of the Integrated Healthcare Campus and there is no basis for the claim that City taxpayers will be burdened paying for additional services.

The comment focuses on the St. Luke's Campus as an alternative for the Project as proposed, and an analysis of that potential site was conducted. However, utilizing the St. Luke's Campus as the Project Site would not achieve the Project's goals as detailed above and would actually contribute to sprawl, which is the expansion of human populations away from central urban areas into low-density, monofunctional and usually car-dependent communities. Development of IHC in Downtown Utica is the antithesis of sprawl and instead represents smart growth, which concentrates growth in compact walkable urban centers. See Responses 28, 48, 195, 196, 197 and 234.

**Comment 195: Gregory D. Eriksen, Bousquet Holstein, PLLC (on behalf of Angela Elefante), Letter, 12/26/18:**

A downtown hospital is antithetical to the stated economic development goals of this Board. The Draft EIS hypothesizes that the proposed downtown location "will help to build a vibrant community through spatial efficiency, creative placemaking, historic preservation, and pedestrian-focused infrastructure." See Draft EIS at pg. 130. It also opines that the downtown location "will strengthen demand for residential living and new commercial developments." See Draft EIS at pg. 130.

**Response 195:**

According to the American Hospital Association[40], in 2016, America's hospitals treated 143 million people in their emergency departments, provided 605 million outpatient visits, performed over 27 million surgeries and delivered nearly 4 million babies. Every year, hospitals provide vital health care services like these to hundreds of millions of people in thousands of communities. However, the importance of hospitals to their communities extends far beyond health care.

The health care sector has traditionally been an economic mainstay, providing stability and job growth in communities. According to the American Hospital Association and the Bureau of Labor Statistics, Current Employment Statistics Highlights (December 2017), health care added more than 35,000 jobs per month in 2016.

Hospital care is an important component of the health care sector. Hospitals employ nearly 5.9 million people; are one of the top sources of private-sector jobs; and purchase $903 billion in goods and services from other businesses.

[40] https://www.aha.org/statistics/2018-06-06-hospitals-are-economic-drivers-their-communities-2018

The goods and services hospitals purchase from other businesses create additional economic value for the community. With these "ripple effects" included, each hospital job supports about two additional jobs, and every dollar spent by a hospital supports roughly $2.30 of additional business activity. Overall, hospitals support 16.5 million total jobs, or one of 9 jobs, in the U.S. and support almost $3.0 trillion in economic activity.

The IHC will create a safer environment for people to live and enjoy recreational activities; linking existing and planned bike and pedestrian routes throughout downtown and the Harbor Point District via the health campus. The Project will also facilitate an improved transportation network, including easy access from multiple directions, and parking co-utilization for the health campus, the AUD, central business district and adjacent businesses.

The IHC will bring 3,500 MVHS employees into the City each day. Given the location of the facility within a 5-minute walk of the urban center (see Response 86), the influx of these employees will result in additional business for many restaurants and retail shops and will create a demand for new restaurant and retail uses. In addition, the IHC will significantly enhance medical staff recruitment efforts. Working for a large, state of the art healthcare system holds a great appeal for physicians and mid-level providers as they will have access to the best facilities and equipment. It is quite likely that some of these individuals will choose to reside in the City near the facility thereby strengthening the demand for residential living, new restaurants and other retail/commercial developments. See also Response 165.

**Comment 196: Gregory D. Eriksen, Bousquet Holstein, PLLC (on behalf of Angela Elefante), Letter, 12/26/18:**

Hospitals are not like typical downtown attractions such as music venues or athletic arenas. Music venues attract city residents and visitors, and invite them to spend time downtown for their event, but also for a meal or shopping before or after their event. An arena invites visitors to spend an afternoon or a day sampling local attractions, in addition to attending a particular event. A hospital is vastly different. People do not choose to spend time in hospitals in the same sense they choose to spend time in traditional downtown locales. People go to hospitals for employment or treatment. Hospitals are closed-universe facilities, similar to casinos. And similar to casinos, once at a hospital, one does not typically leave the premises. Food is available on premises. Security guards ensure patient safety. Shopping is the last thing on the mind of a surgical patient or a visiting loved one. Patients are not free to explore the local neighborhood. Hospital employees want to head home and see their families after a shift, not linger around downtown. As a result, business owners are unlikely to open new businesses adjacent to the proposed hospital location.

**Response 196:**

See Response 165.

**Comment 197: Gregory D. Eriksen, Bousquet Holstein, PLLC (on behalf of Angela Elefante), Letter, 12/26/18:**

Hospitals may cause people to enter a building, but that alone does not guarantee the economic development of the surrounding neighborhood. Because hospitals are closed universes, they do not breathe new life into downtowns. Instead they are walled off from the neighborhood, occupying what could be vibrant mixed-use space. Instead of demolishing 25 acres of downtown to build a medical fortress, this Board should advocate for programs to reinvigorate existing downtown businesses, attract new mixed-use development, and stay true to the principles expressed in the Plan. The area surrounding Johns Hopkins Hospital in Baltimore is a cautionary tale against relying on medical centers for economic revitalization.

**Response 197:**

See Responses 32, 60, 86, 165 and 144.

Economic impact reports prepared by Johns Hopkins demonstrate that the through the "multiplier effect," in 2014, spending by Johns Hopkins, its affiliates, its employees, vendors and contractors, students and visitors, indirectly generated $1.2 billion in economic output and created 6,468 full time-equivalent (FTE) jobs in Baltimore.[41]

**Comment 198: Gregory D. Eriksen, Bousquet Holstein, PLLC (on behalf of Angela Elefante), Letter, 12/26/18:**

Critically, the Draft EIS proposes to take 25 acres of downtown land off of the tax rolls, without adequate replacement. See Draft EIS at 114. Projections for increased adjacent property tax values and other secondary tax dollars are based in part on the incorrect theory that the downtown hospital location will generate a vibrant mixed-use downtown, which it will not. Instead, hospitals are likely to depress the market property values of the immediate surrounding area. In fact, developers who favor the Project may simply hope to buy those still-depressed surrounding properties at further-depressed rates in a few years, for their own profit. Instead of writing off thousands of dollars of property taxes in perpetuity, the Board should seriously consider another location for the Project and advocate for programs to energize the existing businesses and infrastructure downtown, keeping those properties on the tax rolls.

**Response 198:**

See Responses 32, 47, 165, 171, 194 and 195.

**Comment 199: Gregory D. Eriksen, Bousquet Holstein, PLLC (on behalf of Angela Elefante), Letter, 12/26/18:**

In addition, the proposed hospital will require major infrastructure construction (such as the central utility plant) and it will place demands on services such as water and sewer service that will be borne by other taxpayers. The hospital will consume large quantities of resources without paying taxes, thereby putting a strain on the city's finances. The Draft EIS does not adequately address the additional demands on services created by the hospital.

**Response 199:**

The proposed Project will support infrastructure upgrades (water, sewer, gas and electric) at no additional cost to the taxpayers. These upgrades will provide for future development in the area and save the City of Utica from making such investments.

From a facilities perspective, the consolidation of two aging facilities (100 and 60 years) will provide a more energy-efficient environment, which meets and exceeds current day best practices and building codes. A reduction of greenhouse gases, water conservation and other sustainable measures will be incorporated to reduce the overall amount of resources used by MVHS.

Although MVHS is exempt from taxation, it is not exempt from paying for resources, such as water, sewer, gas and electric. As a result, the new facility will not put a strain on the City's finances. Moreover, the physicians' office building proposed as part of the Project will be completely taxable. As a result, the Project will not put a strain on the City's finances.

[41] **http://web.jhu.edu/administration/gca/projects/publications-and-reports/economic-impact-report/EIR%20Documents/EIR%202014/Baltimore%20City%20Exec%20Summary%20EIR%202014.pdf**; **http://web.jhu.edu/administration/gca/projects/publications-and-reports/economic-impact-report/index.html**

Finally, the services (fire/police) required by the IHC will not be appreciably different than the services presently required by SEMC. Accordingly, these existing services will simply be provided in the new location, and as a result, it will not put a strain on the City's finances.

See Responses 123, 124, 127 and 128.

**Comment 200: Gregory D. Eriksen, Bousquet Holstein, PLLC (on behalf of Angela Elefante), Letter, 12/26/18:**

For guidance, we urge the Board to look no further than the downtowns of other Upstate cities. Hospitals are not located in the successful downtown economic districts of cities such as Syracuse, Rochester, and Saratoga Springs. The downtown economic districts of these cities remain mixed-use areas for work, entertainment, restaurants, and living space. Hospitals in these cities tend to be located on the outskirts of the city, or in neighborhoods near universities or medical schools.

**Response 200:**

The Commenter offers an opinion. See also:

**https://buffalonews.com/2018/01/28/growing-medical-campus-steering-downtown-culture/**

**http://www.innovationtrail.org/post/hospital-invests-not-only-new-buildings-neighborhood**

**http://www.rochester.edu/newscenter/wp-content/uploads/2018/06/NYS-Economic-Impact-UR-Affiliates-June-2018.pdf**

**Comment 201: Robert S. Derico, RA, Acting Director, DASNY, Letter, 12/27/18:**

DASNY also recommends that MVHS expand upon the DEIS's discussion of the economic- and growth-inducing impacts that are anticipated from the Proposed Project in the final EIS. To this end, the DEIS notes that MVHS, along with the Mohawk Valley Economic Development Growth Enterprises Corporation ("Mohawk Valley EDGE"), performed a qualitative and quantitative analysis in August 2017 of the potential economic- and growth-inducing impacts which could result from the IHC development project (DEIS page 113). It would be beneficial if the data obtained from that analysis were included within the body of the final EIS or appended as an appendix or attachment.

The DEIS discussion of growth inducing aspects arising from the IHC development also could be more robustly described, emphasizing the increase of the workforce during construction, the potential development after completion of the Proposed Project, and the economic impact on existing merchants, shops, and restaurants in this area of Utica, as well as in abutting districts, such as the Brewery District.

Additionally, in the final EIS, the analysis in the DEIS could expand upon the impact to the greater Oneida County workforce as an outgrowth of the proposed IHC development. The magnitude of this multi-year construction project could include a significant amount of job growth for the immediate project location (Utica) and the greater Utica/Oneida County/Mohawk Valley area.

**Response 201:**

This issue was addressed in Section 8.1 of the DEIS. See also Responses 165 and 195.

According to the American Hospital Association, the goods and services hospitals purchase from other businesses create additional economic value for the community. With these "ripple effects" included, each hospital job supports about two additional jobs, and every dollar spent by a hospital supports roughly $2.30 of additional business activity.

Moreover, the Project is expected to create approximately 1,050 jobs. Goods and services purchased by construction workers will create additional economic value for the community. An additional post-siting analysis was conducted by Turner Construction to estimate construction phase local tax benefits (*i.e*., "traveling manpower" tax generation from construction workers [hotels and restaurants]). It is estimated that construction workers will spend $15,000,000 to $17,000,000 in hotels, restaurants and other purchases over the course of the construction period. Based on Oneida County's tax structure: 8.75% sales tax (4% to NYS; 4.75% to Oneida County) and an additional 2% County tax on hotel stays, the County gets 6.75% on all hotel and 4.75% on restaurant, gas, food and other sales. This equates to approximately $811,000 in estimated "traveling manpower" local taxes generated during the construction phase (Turner 2018).

**Comment 202: Robert S. Derico, RA, Acting Director, DASNY, Letter, 12/27/18:**

The proposed location of the IHC in a designated Federal "Historically Underutilized Business" ("HUB") Zone, could ignite the transformation of a now depressed, formerly thriving portion of the city. While the DEIS references the creation of "the potential for secondary economic development opportunities" a more robust and specific description and analysis of the potential residual growth stemming from the development of this architecturally significant, half-a-billion-dollar construction and urban development project could help define the overall resurgence of this HUB area of the City of Utica.

**Response 202:**

Yes, the IHC footprint is located within a federally-designated HUB Zone. The IHC footprint is also in a former Empire Zone; is designated as a potential EJ area; and in the Urban Renewal Plan Utica Downtown Development Project Area. See Responses 26, 32, 194 and 195.

### 3.22 MISCELLANEOUS COMMENTS

**Comment 203: David Bonacci, AIA, Bonacci Architects, Letter, 12/4/18:**

Having reviewed the Draft Environmental Impact Statement prepared for the project, we remain convinced of the overall positive impact of the proposed Healthcare Campus and hereby state our continued enthusiastic support. As a business owner and resident of downtown Utica, I anxiously await and welcome this addition to our city and our region.

**Response 203:**

The comment is noted.

**Comment 204: Alicia Dicks, President & CEO, Community Foundation of Herkimer and Oneida Counties, Public Hearing, 12/6/18:**

MVHS downtown will meet regional health care needs and support and enhance urban connectivity of place making through innovative design.

**Response 204:**

The comment is noted.

**Comment 205: Alicia Dicks, President & CEO, Community Foundation of Herkimer and Oneida Counties, Public Hearing, 12/6/18:**

The draft document before you is an important part of the required state's environmental quality review process and we have reviewed it, and in light of the potential issues identified some months ago in the project's scoping document, it is our assessment that the draft EIS thoroughly addresses potential impact and mitigation measures that are required by law.

**Response 205:**

The comment is noted.

**Comment 206: Dan Broedel, Program Director, Midstate Regional Emergency Medical Services Council, Public Hearing, 12/6/18:**

With the treatment specialties divided among the two separate hospitals, quickly navigating the best path of care isn't always an easy task for the more than fifteen hundred emergency medical services providers, the staff of 57 ambulance services…With specialty services consolidated at one location, we'll be able to avoid the need for these many patient transfers.

**Response 206:**

The Commenter's statement is consistent with the objectives and capabilities of the Project Sponsor – MVHS, which, as stated in the DEIS and CON application, includes:

- Consolidation of multiple, existing, licensed health care facilities into an integrated system of care, within the largest population center in Oneida County (as stated in MVHS's CON application; see DEIS Appendix A). Within its CON application submitted to the NYSDOH, MVHS indicated that the consolidation will result in the following public benefits:
- Provision of one integrated location for acute care with greater access to residents of the City of Utica, Oneida County and the region
- Improve operational efficiency, patient satisfaction and safety for both patients and caregivers
- Centralize limited physician resources. For example, of the current 550 physicians at MVHS only 220 practices at both FSLH and SEMC
- Reduce the need for patients to make several trips to various locations or be transferred between facilities for specialized care
- Create more collaborative care versus the individual silos of care currently caused by two separate facilities
- Improve access to primary care, especially for population most in need

**Comment 207: Kevin Revere, Director of Emergency Services, Oneida County, Public Hearing, 12/6/18:**

[ ]…having a designated area in the hospital for victims of rape and sexual assault segregated from the rest of the patients in the emergency room; I hope it is still going to be discussed and included.

**Response 207:**

MVHS has planned for a SAFE (Sexual Assault Forensic Evidence) exam room within the Observation area. It has additional storage and a dedicated toilet/shower. MVHS has also indicated that it is providing for secured storage (refrigerated and not) for forensic evidence.

**Comment 208: Patrick Becher, Chair of the Board of Directors, Greater Utica Chamber of Commerce, Public Hearing, 12/6/18:**

Since 2015, the Mohawk Valley Health System has coordinated and participated in over 130 meetings with decision makers and stakeholders. These efforts included meetings with more than 40 interested agencies, specific groups and businesses, and The Greater Utica Chamber of Commerce was included in that process. Through this outreach, a very complete review was established with the state environmental quality process.

**Response 208:**

The comment is noted. See Response 30 and Section 1.2 of this FEIS Responsiveness Summary.

**Comment 209: Patrick Becher, Chair of the Board of Directors, Greater Utica Chamber of Commerce, Public Hearing, 12/6/18:**

The Greater Utica Chamber of Commerce has stated a public position in the past supporting the downtown location, and upon review of the DEIS, we remain confident that our policies and issues was well phrased. We believe in the methodology applied to this review was scientifically sound, factually accurate, extremely comprehensive and was in every aspect conducted in full compliance with all applicable state laws and regulations.

**Response 209:**

The comment is noted.

**Comment 210: Tom Zalocha, Union Representative, Plumbers & Pipefitters Union, Public Hearing, 12/6/18:**

The rebuilding of downtown Utica provides limitless opportunities for growth and development. Developers had already began purchasing buildings with plans for renovation once hospital construction begins. These plans include creating apartment complexes, retail space, and outdoor eating areas.

**Response 210:**

The comment is noted.

**Comment 211: Tom Zalocha, Union Representative, Plumbers & Pipefitters Union, Public Hearing, 12/6/18:**

This hospital does not only benefit the downtown area, but the community as a whole. Our city's residents will have access to the latest achievements in technology, medicine and service with state of the art equipment from specialty doctors and research leaders. This hospital would also provide academic advantages for the local colleges.

**Response 211:**

The comment is noted.

**Comment 212: Daniel Gilmore, Environmental Health Director, Oneida County Health Department, Public Hearing, 12/6/18:**

I have to say that the document that's been prepared, the draft environmental impact statement, is thorough, is well written as any of them that have come across my desk, and I think the hospital will be a benefit to the community.

**Response 212:**

The comment is noted.

**Comment 213: Frank Przybycien, Employee, Genesis Group, Public Hearing, 12/6/18:**

We endorse the project because we feel very strongly that it will enhance the medical services for the region.

**Response 213:**

The comment is noted.

**Comment 214: Stephen Keblish, Resident (Municipality Unspecified), Public Hearing, 12/6/18:**

The impact of relocating current businesses is obviously unknown at the moment given we don't know that all the businesses are going to relocate either in Utica or in the surrounding region. Until plans are finalized with those businesses, the resulting impact they may have on the environmental is completely unknown at the moment. I recommend that you do not finish the statement until we can at least estimate or know what the impacts of relocating any of those businesses might be.

**Response 214:**

See Responses 32, 194, 241 and 254.

Utica has been a historically depressed area with no lack of commercial/industrial space suitable for relocation of existing businesses. The impact of existing businesses operating out of other space is highly speculative at this point, but would not have any greater environmental impact than what exists presently.

**Comment 215: Brett Truett, Resident (Municipality Unspecified), Public Hearing, 12/6/18:**

There is not a study that says that our current hospitals are inadequate.

**Response 215:**

As indicated in the DEIS, as well as in several responses to comments contained within this FEIS Responsiveness Summary, MVHS, in accordance with New York State Public Health Law, submitted and received approval for its CON application. The CON program is a review process that allows the NYSDOH to assess whether there is a public need for the Project, the financial feasibility to undertake the Project, an assessment of the character and competence of the applicant and construction of the facility to certain building code specifications. Based on the information in its application, MVHS received contingent approval of its CON to move forward with the Project, demonstrating that NYSDOH believes the IHC will achieve improvements in healthcare delivery.

The CON application demonstrates that the current hospitals are inadequate. The new facility will provide structural longevity that the current facilities cannot offer. From a facilities perspective, the consolidation of two aging facilities (100 and 60 years) will provide a more energy-efficient environment, which meets and exceeds current day best practices and building codes. Patients will have greater control of room temperature, lighting (both natural and artificial), sound, access to nutrition and private toilet facilities due to the use of 100% private rooms. A reduction of greenhouse gases, water conservation and other sustainable measures will be incorporated to improve the patient experience, as well as a healing environment.

Moreover, expansion/upgrades to St. Luke's would be costly and difficult to achieve. For example, room sizes, door sizes and configuration create potential for falls, transfer difficulties and general movement of patients. In addition, patients are exposed to public areas and there is no clear separation of public and patient support. HVAC, communication, and pressurization systems are not optimal and upgrading in existing space can be difficult and costly. Construction on the existing St. Luke's site also presents a challenge regarding construction phasing; construction and employee access; circulation; and noise, vibration and other sensitivities. The age of St. Luke's does not provide for long-term sustainability and would eliminate certain energy-efficiencies, which meet and exceed current day best practices and building code requirements.

**Comment 216: Shawn Corrigan, Owner, Wilcor International, Public Hearing, 12/6/18:**

We have not been given a choice and we have not been given what we need to even look elsewhere at this point.

**Response 216:**

See Response 194. In addition to the assistance offered by MVHS, several other individuals from the City, the Community Foundation, and the Industrial Development Agency have met specifically with this Commenter concerning suitable locations for their business.

**Comment 217: Michael Lehman, Resident (Municipality Unspecified), Public Hearing, 12/6/18:**

Many consultants employed should be noted by MVHS experts in their very specialized fields and contributed in most cases using only information provided by MVHS; therefore a possible bias in favor of the MVHS interest is unavoidable.

**Response 217:**

The Environmental Impact Statement process has built in checks against bias and distortion because the EIS is subject to public scrutiny and then assessed by government authorities. Those preparing the EIS, generally professional consultants, are aware of this and few would risk their reputations by preparing a biased EIS.

**Comment 218: Michael Lehman, Resident (Municipality Unspecified), Public Hearing, 12/6/18:**

[ ]…the board should focus specifically on the accuracy, completeness and objectivity of information provided by MVHS and direct their consultants through the evaluation of chapters dealing with aesthetic resources, historic and archeological resources as pertaining to community care and the short and long-term costs associated with the proposed action.

**Response 218:**

The Lead Agency reviewed the DEIS and has relied on its planning staff and other City departments and involved state agencies to assist with its review. On November 15, 2018, following its review, the Lead Agency issued a Notice of Completion of the DEIS, indicating that the document was complete, conformed to the approved scoping document, addressed the issues required to be addressed in the scoping document, and was adequate for public review and comment.

**Comment 219: Michael Lehman, Resident (Municipality Unspecified), Public Hearing, 12/6/18:**

Many of the costs associated with the proposed downtown site has yet to be identified by the other people you spoke to, this is problematic as to these additional costs are typically born by the taxpayers. The St. Luke's site was identified by MVHS as an acceptable second alternative if the proposed downtown site proved financially unfeasible, which it has. The public is expected to cover the cost of the parking garage, infrastructure upgrading and expansion to our lost tax revenue and a cost proposed amounting to the main proceeding of the property as well.

**Response 219:**

The Project budget has accounted for the costs associated with developing the IHC downtown. To the extent that the comment relates to St. Luke’s as an acceptable alternative site, see Responses 26, 28 and 48.

MVHS has entered into a Memorandum of Agreement with the City and the County to construct a new parking garage. The parking garage will be funded in part by MVHS and in part by the County and City. Although the parking garage will be used to provide parking for the new hospital, the parking garage will be open to the public and will also be used to provide parking for the NEXUS Center project. Moreover, parking in the garage will not be free of charge, and the income will be used to repay the bonds acquired by the County and City to finance their portion of the project. See Responses 123 and 152.

**Comment 220: Michael Lehman, Resident (Municipality Unspecified), Public Hearing, 12/6/18:**

Site planning that was directed by the previous speaker is not an integrator providing he cannot speak as an architect urban designer; having the training in that area, it does not provide creative site making, it's basically a suburban scheme with acres of parking surrounding it being shoehorned into an Urban site and basically destroying any potential for economic development that may happen there in an organic manner similar to what is happening in the rest of the city.

**Response 220:**

See Responses 43, 60, 86, 151, 194 and 234.

**Comment 221: Donna Beckett, Resident (Municipality Unspecified), Public Hearing, 12/6/18:**

The other thing that somebody mentioned about state of the art equipment. It will not have state of the art equipment. It's a new building, it could be all the same old equipment.

**Response 221:**

While it is correct that some of the equipment at the new hospital will be brought over from St. Luke's and the SEMC, it will only be equipment that is relatively new with a majority of its serviceable life remaining. MVHS has indicated that it has included a medical equipment planning consultant on the design team that evaluates the usability of existing equipment, and recommends what should be purchased as part of the hospital system's on-going capital budget between now and the opening of the new hospital. Additionally, MVHS has indicated that it has budgeted for the purchase of new, state-of-the-art, medical equipment for the new hospital.

**Comment 222: Karen Corrigan, Resident (Municipality Unspecified), Public Hearing, 12/6/18:**

Why do the taxpayers have to pick up the parking garage?

**Response 222:**

See Responses 123, 152 and 219. The County and City have stated that additional parking in the area of the AUD is necessary.

**Comment 223: Karen Corrigan, Resident (Municipality Unspecified), Public Hearing, 12/6/18:**

[ ]...no more people are going to be employed by the hospital, it's the same amount of people, maybe less because they're consolidating.

**Response 223:**

MVHS is anticipating gaining numerous operational efficiencies by combining clinical and service departments into one facility. The current forecast reduces overall full-time equivalents at the combined facility; however, given the historical staff turnover rate, MVHS anticipates that a majority of the positions identified in the forecast will be accomplished through attrition, as well as a portion of the employees transferring to the outpatient setting to accommodate the additional demand in the areas of primary care, behavioral health, and home care.

**Comment 224: Karen Corrigan, Resident (Municipality Unspecified), Public Hearing, 12/6/18:**

Why are we taking these businesses out of there, not only the businesses that are there, the businesses that could have been, and why are we not letting people take these places over so that we can build?

**Response 224:**

See Responses 26, 28, 32, 47, 60 and 144.

**Comment 225: Linda K. Paciello, Ph.D., Resident (New Hartford), Letter, 12/18/18:**

What will be the cost to the taxpayers to replace the businesses that are being displaced? What are the amounts of money lost in tax revenue?

**Response 225:**

See Responses 193, 194 and 195.

**Response 226:**

The comment is noted.

**Comment 227: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

As detailed within, the Draft EIS contains incorrect and misleading information, omits relevant information, and dismisses or fails to develop certain topics.

**Response 227:**

This comment is an opinion. There are no major, substantive omissions or deficiencies in the DEIS.

The Lead Agency should ensure that all relevant information has been presented and analyzed, but should neither expect nor require a "perfect" or exhaustive document. The degree of detail should reflect the complexity of the action and the magnitude and importance of likely impacts.

A draft EIS that is adequate to be accepted for public review should describe the proposed action, alternatives to the action, and various means of mitigating impacts of the action. The draft EIS should identify and discuss all significant environmental issues related to the action, however, the draft EIS will not necessarily provide a final resolution of any issues. Since one of the major purposes of a draft EIS is to give the public an opportunity to comment on the environmental issues raised, as well as the possible alternatives and mitigation offered to address those issues, settling on a resolution of one or more issues prior to public review would be counter to the intent of SEQRA.

SEQRA gives considerable discretion to agencies to make decisions consistent with social, economic and other essential considerations. While SEQRA requires that adverse environmental impacts must be avoided, minimized, and/or mitigated to the maximum extent practicable, agencies may approve actions providing social or economic benefits, even if all environmental impacts cannot be totally avoided or mitigated. Thus, the more a project provides important, public, social and economic needs or benefits, the more an agency may conclude that it can accept certain adverse environmental impacts. Here, not only have the potential environmental impacts been minimized or mitigated, but the IHC will also provide significant social and economic benefits.

**Comment 228: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

While its flaws are many and in need of correction, its Fatal Flaw is that it does not consider re-siting the Project to the St. Luke's Campus as avoidance or mitigation of the many significant environmental impacts that are evident.

**Response 228:**

See Responses 26 and 28.

**Comment 229: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

Simply, the Draft EIS is incomplete and does not provide a rational basis for the Planning Board or any Involved Agency to make the findings required by the State Environmental Quality Review Act (SEQRA) that adverse environmental impacts are avoided or mitigated to the maximum extent practicable.

**Response 229:**

See Responses 35 and 227.

**Comment 230: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

Environmental Justice: The Draft EIS acknowledges the need to address Environmental Justice in Section 1.2.3 and in several other places, mentions several times that the Downtown Site is potentially an Environmental Justice area, but then fails to offer anything about the issue. The Draft EIS fails to assess the Project's impacts on the protected population or otherwise deal with those impacts. In this regard it is noted that the Project will displace from the neighborhood, if not destroy, about 40 business and other entities where people are working. No attempt has been made to assess the number or holders of those jobs, their circumstances, or whether they are members of the protected population. The Project will also displace or impact several charitable institutions that serve the protected population, such as the Salvation Army and Compassion Coalition. Jobs and services clearly are going to be lost to the neighborhood. The EIS must acknowledge that Environmental Justice impacts may be completely avoided by relocation of the Project to the St. Luke's Campus, which is not in an E-J neighborhood.

**Response 230:**

Siting the IHC within walking distance of the most at-risk population is a community character and EJ benefit. The DEIS (Section 1.2.3) notes that the entire City of Utica is located in an area identified as a "Potential EJ Area." According to the MVHS grant application, there is high poverty with 22.5% of the population <138% of Federal Poverty Level (Medicaid eligible) and 30.1% of population in Utica <100% of Federal Poverty Level. In the City of Utica 40.5% of the population is on public health insurance, 36.9% are Medicaid. Oneida County has 23.7% of the residents on public health insurance and 19.2% are Medicaid. It's an area with high socio-economic disparities compared to NYS; Emergency Department (ED) visits and hospitalizations are also significantly higher.

Home to one of the largest refugee resettlement agencies in the country, Mohawk Valley Resource Center for Refugees (MVRCR) has, since the 1980s, resettled more than 15,000 individuals in Utica with ethnicities and nationalities including Vietnamese, Russian, Bosnian, Somali Bantu, Burmese and Nepali. Utica foreign-born residents constitute 17.6 percent of the population. 26.6 percent of households in Utica speak a language other than English. The new hospital/health campus downtown would improve access for our refugee population. (MVHS spends more than $800,000 annually to provide language assistance for health care services. We employ four program specialists/interpreters, 22 per diem interpreters and work with outside agencies, covering 30 different languages and dialects.) Within the rural areas of Oneida County, there are also growing areas of Amish and Mennonite populations.

See Responses 1, 32 and 33 for further discussion on how the IHC will improve healthcare for those who need it most.

**Comment 231: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

Creation of a Demand for Other Actions that Could Impact the Environment: This topic is only partially touched upon in the Draft EIS in Section 8.2 "Adaptive Reuse of FSLH and SEMC," and is otherwise ignored.

The Project will take the new Utica Police Garage, disrupting the Utica Police Campus which also includes the Police Station, Utica City Court, and associated parking. No plan for the garage's functions has been announced, and the impact on the functioning of the other portions of the Campus is unassessed. The change in the map of the Utica Police Campus suggests that it will be 'squeezed out' by the surrounding Medical Campus, and create a need to build a new Police Campus (Garage, Station and City Court) elsewhere.

**Response 231:**

See Response 4.

**Comment 232: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

The Project will take the facilities of some 40 business and other entities, and likely force others out of the neighborhood due to construction disruptions. If these entities continue their existence elsewhere they likely will go to the suburbs (Empire Bath has already moved to Marcy, and Brandeis will be moving to Whitesboro). Forcing businesses out of the City creates sprawl, increasing the demand for public infrastructure and services, making the public more dependent on the automobile, and wasting energy.

**Response 232:**

See Response 32. There are approximately 25 existing businesses and 4 active not-for-profit organizations within the Project area. At least 9 of the businesses are small-scale auto parts/service or warehousing businesses conducted in garages or other low-quality retail space. The businesses also include 2 bars and an adult entertainment establishment. Other businesses include an HVAC contractor, fabrication business, billboard company, paint retailer, retail bookstore, dry cleaner, salon, and The Salvation Army. Most or all the properties at issue were not specifically constructed for the current use, but instead are adapted for second or third-generation, lower quality use. Given the types of uses and the nature of the space involved, these uses should be able to relocate to appropriately zoned spaced with little to no additional impacts. Relocation of these businesses either in the City of Utica or elsewhere creates additional opportunities for growth and economic development.

**Comment 233: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

Relocation of the Project to the St. Luke's Campus should be considered in mitigation of potential demands for other actions because: (a) there would be no need to disrupt the Utica Police Campus, (b) there would be no need to displace businesses and others, and (c) some of the St. Luke's facilities could continue to be used to serve the Applicant (*e.g.*, the Medical Office Building and the Co-Gen Facility).

**Response 233:**

See Responses 4, 26, 28, 32, 48, 37, 58 and 194.

**Comment 234: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

Smart Growth Policy (Environmental Conservation Law Article 6): The Draft EIS makes some references to the State's Smart Growth Policy (pp. 48, 49, 1591/3527) regarding the Site Selection Process, but otherwise ignores the subject. The Draft EIS claims that the Downtown Site would be viewed more favorably if state funds are pursued and that re-purposing urban parcels is a sustainable initiative. The Draft EIS assigns extra "points" to the Downtown Site as being "smart growth." However, the Draft EIS' treatment of the topic is absurd – like a box to be checked – without any apparent understanding that the purpose of the law is to minimize sprawl. The Project exacerbates sprawl by: (1) ripping out (wasting) an urban grid infrastructure and replacing it with a suburban-style campus with acres of parking (a low level use); (2) wasting Applicant's existing suburban campus, unnecessarily dispersing Applicant's facilities; and (3) pushing out 40 entities currently occupying the Downtown Site, and likely driving many of them to the suburbs or lesser developed areas. Simply, the Draft EIS turns the State's Smart Growth Policy on its head. The EIS needs to acknowledge that relocating the Project to the St. Luke's Campus would be more consistent with Smart Growth principles because it avoids the three negatives listed above.

**Response 234:**

The comment focuses on the St. Luke's Campus as an alternative for the Project as proposed, and an analysis of that potential site was conducted. However, utilizing the St. Luke's Campus as the Project Site would not achieve the Project's goals and would entail significant additional costs to upgrade as detailed above. See Responses 28, 32, 48 and 123.

In fact, utilizing the St. Luke's Campus as the Project Site would not achieve the Applicant's goals as detailed above and would actually increase the potential for sprawl, which is the expansion of human populations away from central urban areas into low-density, monofunctional and usually car-dependent communities. Development of the IHC in downtown Utica is the antithesis of sprawl and instead represents smart growth, which concentrates growth in compact walkable urban centers.

The Principles of Smart Growth as outlined on the NYSDEC website (http://www.dec.ny.gov/lands/45970.html) are listed below along with a discussion of how they may be applied on this Project at the Downtown Site:

- **Foster strong, sustainable businesses in community centers** – enhance infrastructure in downtowns and villages to attract economic growth and discourage scattered development. The Project does enhance the downtown infrastructure surrounding the Project Site, which will facilitate economic growth. Downtown housing, commercial, food, retail, education and entertainment venues are positioned to benefit from the influx of more than 3,500 MVHS employees and medical staff at the new IHC. The Project is a strong step in discouraging scattered development. The MVHS Board dismissed sites that could be categorized as greenfields in suburban communities.
- **Preserve open space, forests, farmland, natural beauty, and critical environmental areas** – keep irreplaceable resources intact to bolster local economies, improve quality of life, and guide growth inward. The Project guides growth inward, seeking to increase employment in the downtown core and spur new mixed-use investments in downtown and in adjacent neighborhoods like Bagg's Square and Harbor Point.
- **Strengthen and direct development towards existing communities** – tap into existing infrastructure and neighborhood resources to stop the sprawling urban fringe. The Project makes use of, and improves, sewer and water infrastructure that was built to serve a larger population base in the City.
- **Foster distinctive, attractive communities with a strong sense of place** – value development and construction that has distinctive architectural beauty. The IHC would be constructed within a section of the city earmarked for urban renewal, and the proposed hospital facility would be a significant architectural accomplishment, potentially injecting this area of the city with a new, modern centerpiece derived from the architecture of its neighboring buildings and historical past.
- **Create walkable neighborhoods** – build compactly and focus everyday activity along streetscapes designed for pedestrians, bicyclists, transit riders, and automobiles. A key consideration of the Project is to preserve and enhance walkability and increase pedestrian traffic. See Response 86.
- **Take advantage of green building design -** use innovative approaches, proper building placement, and local materials. Several of the Project elements are consistent with "green" design (see DEIS Section 3.8).
- **Create a range of housing opportunities and choices** – build quality housing for people of all income levels with access to jobs, culture and open space. Investment in urban housing projects near the IHC are expected to grow.
- **Encourage community and stakeholder collaboration in development decisions** – work together to find creative solutions, increase community understanding and plan and invest in shared spaces. The Project helps to connect adjacent districts together with common themes (*e.g.*, health, sports, and entertainment as reflected in the IHC, Varick Street, AUD/NEXUS, Harbor Point), while investing in public spaces (AUD/NEXUS and Harbor Point) and preserving historic districts (Genesee Street and Bagg's Square).
- **Mix land uses – locate commercial uses proximate to residential areas and open space**. The Project should help downtown and adjacent neighborhoods like Bagg's Square locate commercial uses to complement newly created loft apartments.
- **Make development decisions predictable, fair and cost effective** – provide government leadership that creates a fertile environment for innovation. The Project includes a proposed innovative collaboration between MVHS and the Masonic Medical Research Laboratory.
- **Provide a variety of transportation choices** – reinforce the viability of smart growth with efficient movement between housing, shopping, and jobs. Being downtown, the Project is well-positioned to maximize transportations choices.

- **Foster long term comprehensive planning** – plan to reach local, regional and state goals, to target investment, increase local capacity and increase intergovernmental efficiency. Targeted investment in upstate New York cities has been part of the economic development agenda of the State over the past several years.

**Comment 235: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

Conclusion re Environmental Concerns. Significant environmental concerns are either ignored, understated, or masked by a focus on minutae. [sic]

**Response 235:**

See Responses 35, 227 and 229.

**Comment 236: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

The SEQRA process is set forth in ENV Article 8 and its implementing regulations, 6 NYCRR Part 617 (State Environmental Quality Review, SEQR). As described in the SEQR Handbook (p.3):

*"SEQR establishes a process to systematically consider environmental factors early in the planning stages of actions that are directly undertaken, funded or approved by local, regional and state agencies. By incorporating environmental review early in the planning stages, projects can be modified as needed to avoid adverse impacts on the environment."*

The availability of State funds for the Project was announced in early 2015, the Project Site was announced in September, 2015, and we just got around to SEQR in 2018 when the Oneida County Industrial Development Agency made a Positive Declaration. Does that sound like "incorporating environmental review early in the planning stages" so that "projects can be modified as needed to avoid adverse impacts on the environment?" Why was SEQR not part of the planning of the Project from the very beginning, including the choice of the site? As noted under Part I Section I, the site of a project is an appropriate consideration under SEQR, and the State promulgated a non-exhaustive list of those actions considered to have significant adverse impacts (6 NYCRR 617.7(c)(1)). This could have been used to help screen or rank the sites – but it was not.

**Response 236:**

Grant funds were made available by an act of the New York State Legislature when it adopted the Oneida County Health Care Facility Transformation Program in 2015. The Oneida County Health Care Facility Transformation Program specifies that to qualify for funding the proposed Project must be located in the largest population center in Oneida County. Accordingly, to qualify for state funding, the Project was required to be located in the City of Utica, which is the largest population center in Oneida County based on the most recent U.S. survey results. The SEQRA regulations are clear that actions of the Legislature of the State of New York are Type II actions that are not subject to review. Accordingly, it was not necessary for the State Legislature to incorporate environmental review into its decision making, which included establishing the parameters for the location of the Project.

Not only was the State Legislature not subject to SEQRA, but also MVHS is a private applicant that is not subject to SEQRA in connection with its own internal site selection process. Nevertheless, MVHS's decision to locate the new healthcare campus in downtown Utica was made after extensive research and studies were performed. The criteria analyzed in these studies included access to the site by the populations we serve, environmental impacts and infrastructure requirements. An initial study was performed by Elan and OBG, which prepared a comprehensive site evaluation of 10+ sites within Oneida County that could support a replacement facility. That report, issued on June 12, 2015, recommended the downtown Utica location. Subsequently, Hammes Company, who MVHS began to engage in December 2014, provided a second opinion on the site recommendation of the initial study. After performing a comprehensive review of the report, Hammes confirmed the recommendation of the Downtown Site as the best option for MVHS to pursue.

Accordingly, there was no requirement to commence the SEQRA process prior to the submission of MVHS's application for assistance to the Oneida County Local Development Corporation. However, even though the formal SEQRA process was not commenced until 2018, the spirit of SEQRA was satisfied as a result of the site selection process undertaken by MVHS.

See also Response 39.

**Comment 237: Frank Montecalvo, Attorney at Law, Letter, 12/26/18:**

For a major project such as this, ENV 8-0109 requires preparation of an EIS. The regulations make clear that a government agency cannot undertake, fund or approve of an action until it has complied with the provisions of SEQR (see 6 NYCRR 617.3 (a)). But that is, in deed, what happened at least as far back as Summer 2016 when Oneida County put county employees, and Utica put city employees (the Planning Board's Staff), to the task of engaging in regular meetings with MVHS to help plan for the Project at the Downtown Site, because government employee time is money.

If the applicability of SEQR and need for an EIS was not apparent to the local authorities at that point in time, then it should have been apparent when the County approved funding for MVEDGE to provide property appraisal services for MVHS aiding the pursuit of the Downtown Site. The County should have stopped further action and opened the SEQR process then, but it did not. Nothing was done about SEQR until there was an "application" that triggered a review – but, as noted above, the law wants the environment taken into consideration "early in the planning stages" so that "projects can be modified as needed to avoid adverse impacts on the environment." Here, the County and City had employees planning this project without the environmental information required by law. It is a shame that so much time and money was spent on a flawed process.

Like the Site Selection Process appears to have been tainted by undue influence, the entire EIS appears tainted as well. People who have personally invested their time toward securing the Project for Downtown will have difficulty focusing on another site – an impossibility for those where the alternate site is in another jurisdiction.

At this point in time the Planning Board is faced with (1) an EIS that cannot support a SEQR finding because St. Luke's appears to be the environmentally superior site and (2) having to give up jurisdiction because it has no legal authority in New Hartford.

The EIS must be rejected as inadequate, and the process reopened for a new Lead Agency to produce a revised Draft EIS that addresses all the open issues identified herein.

**Response 237:**

See Responses 26, 28, 36, 39 and 236.

**Comment 238: Michael Galime, City of Utica Council President, Letter, 12/27/18:**

The City of Utica has no formal financial plan to increase public safety requirements, nor are the new requirements listed within the scoping studies.

**Response 238:**

This comment was not raised during the scoping process as an issue to be covered in the DEIS. Accordingly, there is no requirement that such information be contained in the DEIS. Nevertheless, the proposed Project will not require increased public safety requirements.

**Comment 239: Michael Galime, City of Utica Council President, Letter, 12/27/18:**

Overall Site Assemblage. The site is not complete.

**Response 239:**

MVHS holds purchase options on a significant number of the properties located within the downtown Utica Project footprint and is in active negotiations with several other owners to acquire the remaining properties. For those few properties that MVHS may not be able to acquire through negotiation, MVHS has asked Oneida County and the Utica URA to assist with the acquisition of those properties via *eminent domain* since the Project serves the public health and welfare by providing improved medical services and revitalizing a blighted area.

**Comment 240: Michael Galime, City of Utica Council President, Letter, 12/27/18:**

As part of the site assemblage private land owners have been told they must sell to MVHS. This impact study does not address the needs to assemble the site fully or remediate the environmental impacts imposed on the current land owners and businesses.

**Response 240:**

The DEIS discusses the potential need for *eminent domain* to complete property acquisition. The DEIS also discusses environmental impacts associated with demolition of existing buildings and remediation of any soil or groundwater contamination. Although there might be economic impacts on owners and businesses required to relocate, these do not amount to environmental impacts that require consideration under SEQRA.

See Responses 32, 142 and 194.

**Comment 241: Michael Galime, City of Utica Council President, Letter, 12/27/18:**

Currently involved agencies (NYS ESD) are directing funding to specific entities (RCIL) for relocation, and other entities for reconstruction (Empire Bath Building owners), while other private land and business owners are being left to fend for themselves, based on potential option payout agreements. There is a complete lack of site assemblage support. The involvement of other agencies, such as the Community Foundation, to hire coordinators, is not sufficient, and creates another unlisted involved agency under SEQRA, and more obfuscation for property owners attempting to find resolve within the proposal.

As stated multiple times, the site assemblage is not complete, and MVHS has not demonstrated that it is committed to aiding in relocation and/or business continuance plans for the affected properties.

The current site assemblage plan resembles the efforts used when transitioning government inactive land into private sector, while this project is transitioning private active business property into a single entity campus for a not-for-profit private large business.

The funding currently routed to RCIL and the owners of the previous Empire Bath building is both segmentation and preferential treatment through use of secondary taxpayer funded initiatives, in order to clear issues for the current open SEQRA study.

None of this is addressed.

**Response 241:**

MVHS has been negotiating with many of the property owners in the Project area to acquire the property through voluntary acquisitions. In 2017, MVHS retained three appraisal firms to inspect the properties and prepare appraisals that would be used by MVHS to make offers to acquire the properties. Although many of the owners consented to such an inspection, some did not. Under the terms of the grant funding, once the appraisals were completed, they were submitted to DASNY for review. DASNY did not approve appraisals for properties that were not inspected. Accordingly, in December 2017, MVHS sent proposed purchase options to owners who had allowed their property to be inspected by MVHS appraisers. The proposed option sought to acquire the property based on the DASNY approved appraised value. In response to comments and public criticism that not all the owners received a purchase offer, in February 2018, MVHS sent proposed purchase options to the remaining owners based on the appraised value even though DASNY had not approved those reports.

Following the transmission of the option agreements, MVHS actively negotiated with many of the property owners to address concerns regarding the appraised value, relocation costs, timing of relocation, and environmental indemnity. Although compliance with the Federal Uniform Relocation Assistance and Real Property Acquisition Act is not required for this Project, MVHS has segregated certain funds, initially up to $1,000,000, to provide relocation assistance for affected property owners in the Project footprint to support those businesses or not-for-profit entities looking to relocate within the City of Utica or Oneida County. To assist with negotiations and relocation efforts, MVHS enlisted the aid of the Community Foundation, which is a non-profit foundation and is not a public agency subject to SEQRA. MVHS was clear that relocation assistance would be determined on a case-by-case basis based on the level of assistance needed to cover actual, reasonable and necessary moving expenses. During negotiations, MVHS agreed to pay relocation expenses to a number of property owners even though it was not lawfully obligated to do so.

MVHS has no knowledge of or control over any additional funding or financial benefits or incentives that have been applied for or awarded to those property owners who have entered into purchase options with MVHS. As these incentives are purely economic impacts, they are not required to be analyzed as part of the SEQRA review. In addition, any economic incentives available to relocating owners and businesses would not amount to unlawful segmentation because there is no common ownership, it is not part of a common plan, the various projects are not interrelated or functionally dependent and the Project does not commit any agency to approve economic incentives.

**Comment 242: Michael Galime, City of Utica Council President, Letter, 12/27/18:**

The ability for private businesses who both lease and own property to move ahead successfully, if this proposal is approved, has not been addressed.

- The proposal has proceeded as a land transition plan for vacant unused property. This land was not vacant and unused at the time of original public promotion of this proposal, nor at the time of filing, this February, 2018.
- Private business requires capital funds to relocate and continue operating if relocation is necessary.
- Prior to the approval of this proposed action, private land owners are being advised by involved agencies to incur costs ahead of MVHS agreements to purchase. This is both irresponsible, and in conflict with the current SEQRA review.
- SEQRA has no effective ability to address the pressure on private businesses to leave their current sites and/or negotiate with MVHS. The planning board should be requiring this.
- This current proposal does not address how businesses can move forward without incurring debt and/or capital expenses solely related to this project, or how to build out new facilities while operating in the current state. The advisement to move ahead pre-maturely – prior to completing negotiations with MVHS - is allowing MVHS to escape the responsibility that SEQRA should deem required in remediating the strategic and financial this proposal has presented.
- These issues must be addressed and remediated if this project is approved for development in the selected location.

**Response 242:**

See Responses 32, 193, 194, 195 and 241.

**Comment 243: Michael Galime, City of Utica Council President, Letter, 12/27/18:**

Many outpatient facilities and medical offices have located and/or been built within the St. Luke's facility vicinity. This includes the Omni Surgical Center, as well as many offices within the business park. Will these locations need to relocate, and if so, will this cause unplanned financial burden on the overall medical community?

**Response 243:**

As noted in the CON application (DEIS Appendix A), the following MVHS controlled facilities and services will remain on the St. Luke's Campus: (1) 24 PM&R beds and other outpatient services at 1656 Champlin Avenue, Utica (Oneida County); (2) the laboratory PSC, primary care, obstetrics, and outpatient surgeon offices will continue to be located within a Physician Office Building. MVHS has no control over these other users and whether the owners of these other facilities choose to relocate is purely speculative.

**Comment 244: Michael Galime, City of Utica Council President, Letter, 12/27/18:**

A blanket statement has been made that there is a need to place medical care within reach of people in socio-economically stressed scenarios. The current proposal and scoping document proposes the construction of an acute care facility with surgical and emergency services. Placing a facility of this type in the urban core of the greater Utica area may create a situation that the care that is most needed by the population discussed as "in need," in the MVHS proposal and state legislation, will not be able to receive the clinical and chronic care at the proposed facility.

It is very possible and should be studied that spending 1billion dollars rearranging the region around a single facility of this design is not addressing the actual needs of this community.

This consideration should be studied regardless of the chosen location.

**Response 244:**

The primary service area (PSA) for this Project is comprised of Oneida County. The two (2) largest cities in Oneida County are Utica (with a 2015 population of 61,628 (most recent data available)) and Rome (with a 2015 population of about 32,916 (most recent data available)). MVHS's patients generally come from 45 towns and villages covering 1,257 square miles surrounding the facilities. Approximately two-thirds (67%) of the County's population resides in urban/suburban areas, while the remaining one-third (33%) resides in rural areas.

With nearly 18.0% of the population 65 years and older, Oneida County had a median age of 41.1 in 2016. Furthermore, in 2016, the race/ethnicity of Oneida County was broken down as follows: Hispanic (5.5%); non-Hispanic White (82.2%); non-Hispanic African-American (5.2%); non-Hispanic Asian (4.2%); and non-Hispanic other minorities (2.9%). Furthermore, 17.1 % of the population is living at or below the Federal Poverty Level (FPL), demonstrating the high poverty that exists in the region. In the City of Utica, 32.2% of the population is living at or below the FPL.

Oneida County is home to one of the largest refugee resettlement agencies in the country, Mohawk Valley Resource Center for Refugees (MVRCR). Since the 1980s, MVRCR has resettled more than 15,000 individuals in Utica, with ethnicities and nationalities including Vietnamese, Russian, Bosnian, Somali (Bantu), Burmese and Nepali. Importantly, foreign-born residents constituted 18.9% of the Utica population in 2015. Furthermore, about 27.7% of Utica residents aged five (5) and older spoke a language other than English in 2015.

The new hospital campus in downtown Utica will improve access for all area residents, including this large refugee population. MVHS currently spends more than $800,000 annually to provide language assistance associated with its healthcare services. In particular, the hospital employs four (4) program specialists/interpreters and 22 per-diem interpreters, and it works with outside agencies to cover 30 different languages and dialects. Lastly, within the rural areas of Oneida County, there are also growing numbers of Amish and Mennonite residents.

Relative to the PQI measures of the NYSDOH, geographic areas that need improved access to care in Oneida County include Utica, Rome and Waterville. These areas have total PQI rates that are up to 170% greater than expected. Residents of Oneida County also experience poor health outcomes for a number of conditions, including cardiovascular disease, diseases of the heart, coronary heart disease, acute myocardial infarction (heart attack), congestive heart failure, cerebrovascular disease (stroke), hypertension, chronic kidney disease, diabetes, chronic lower respiratory disease, asthma and cancer.

MVHS is actively involved in the New York State Delivery System Reform Incentive Payment (DSRIP) program, and this proposed Project aligns with the goals and system transformation work being done through the program. The overall Project supports the development of an integrated delivery system that reduces excess capacity, eliminates the duplication of services and focuses on patient-centered care while improving patient outcomes and reducing costs. The operational efficiencies gained through the new hospital, in concert with DSRIP project implementation, will enhance care coordination and allow resources to be repurposed to better support outpatient models of care and to implement a population health approach for Oneida County.

The proposed new hospital Project provides the physical infrastructure that removes many of the barriers and challenges currently impeding improvements to these measures. The overall Project aligns with DSRIP objectives because it allows for enhanced access to high quality primary care, reduced care gaps and inefficiencies and alignment with payment reform focused on outcomes and population health management. Specific DSRIP performance measures aligned with the Project are as follows:

- Increasing the number of practices with NCQA Level 3 Patient-Centered Medical Home (PCMH) recognition
- Implementation of DSRIP Project 2.a.i. – Create an Integrated Delivery System that supports the County patients receiving the right care, at the right time and in the right setting. This involves enhancements to primary care, communication and access to health information. MVHS is working with CNYCC to implement a population health management system as a tool for improving communication, efficiency and closing gaps in care for County residents.
- Reducing ED visits for ambulatory sensitive conditions: Implementation of DSRIP Project 2.b.iii – Emergency Department Care Triage for At-Risk Populations provides for a patient navigation program in the proposed Emergency Department to coach patients regarding appropriate ED utilization, address social needs and connect with primary care.
- Reducing hospital admissions for super-utilizers: Implementation of DSRIP Project 2.b.iv – Care Transitions Intervention Model to Reduce 30 Day Readmissions. A key element of this Project involves enhancements to care planning and coordination among the healthcare team for those patients most at risk for readmission.
- Integration of behavioral health into the primary care setting: Implementation of DSRIP Project 3.a.i – Integration of Primary Care and Behavioral Health Services enhances a behavioral health network and improves access to behavioral health services for the County.
- Increasing referrals to Health Home: Implementation of DSRIP Project 2.a.ii – DSRIP Care Management will enhance care coordination and management, supporting appropriate utilization of healthcare services

**Comment 245: Michael Galime, City of Utica Council President, Letter, 12/27/18:**

Financial Impact to City of Utica. The financial impact to the City of Utica is not understood at this point. There are unknown and unspecified costs regarding infrastructure, facility relocations, parking garage costs, and the introduction of a large tax abatement. A long term (5 year, 10 year, and 15 year) outlook should be analyzed and considered. Above and beyond property tax, there will be a loss in sales tax, and increase in services, that should be studied and considered adverse, due to the impact to the City. All accountable costs, revenue loss, revenue gains, and expenses must be considered.

Financial Impact to City of Utica School District. If the downtown location is chosen, the Utica School District will be losing tax revenue funding.

Financial Impact to County. If the downtown location is chosen, the Oneida County will be losing tax revenue funding.

Financial Impact to City of Utica Library. If the downtown location is chosen, the Utica Library will be losing tax revenue funding.

Impact of loss of Central Business District. The direct cost to the City of Utica in aiding MVHS to build a downtown facility may be greater than the cost to reinvigorate the current tax paying business district through use of the same street scape and façade improvements proven to work on Genesee St and repairing a reutilizing our current parking structures for Hotel and Auditorium needs.

The indirect cost of spending money to reduce the ability to generate tax revenue will spread the direct costs of the MVHS aid from the City and County across the remaining tax paying entities left in the City of Utica, while resulting in a permanent tax abated installation.

**Response 245:**

See Response 193. Based on the City's assessment rolls, the taxable assessed value for the properties to be acquired for the IHC is $4,320,458. Some of the properties are already exempt or in arrears on their tax payments. Others are vacant or dilapidated resulting in low assessments for the entire area. Moreover, there has been no new construction or significant expansions in the Project footprint for more than 20-years. The Project area has been depressed for years and has not been redeveloped despite programs such as the Urban Renewal Plan, the Gateway Canal Overlay District, the 2011 Master Plan, and development in nearby areas of Bagg's Square, Harbor Point, and Varick Street.

Medical office space near hospital centers typical sells for $100 to $150 per square foot. Accordingly, assuming that the Project adds 80,000 square feet of taxable medical office space, the Project is projected to be assessed at $8,000,000 to $12,000,000. As a result, the IHC would likely result in an annual increase in property tax payments to all taxing jurisdictions as set forth in the chart below. The IHC is also projected to increase sales tax revenues; approximately $106,500 in additional annual sales tax revenues during construction and approximately $191,500 in additional annual sales tax revenues following construction.

**Table 4. Estimated Revenues**

| Estimated Revenues | Municipality | Existing AV | Existing Taxes | Description | | Amount/year |
|---|---|---|---|---|---|---|
| ***Medical Office Building*** | *City of Utica* | *$4,320,458* | *$115,000* | *80,000 GSF* | *$8M to $12M AV $27.091643/$1,000* | *$ 216,733 to $325,099* |
| | *County* | *$4,320,458* | *$51,919* | | *$8M to $12M AV $12.017093/$1,000* | *$96,137 to $144,205* |
| | *School District* | *$4,320,458* | *$116,511* | | *$8M to $12M AV $26.967227/$1,000* | *$215,738 to $323,607* |
| | *Library* | *$4,320,458* | *$3,045* | | *$8M to $12M AV $0.704759/$1,000* | *$5,638 to $8,457* |
| ***Taxable Sales – Construction Period (3 Yrs.)*** | *City* | | | *$15 M to $17 M over 3 years* | *Midpoint: $16 M used, which generates $320,000 to City of Utica over 3 Yrs.* | *$ 106,667* |

| Estimated Revenues | Municipality | Existing AV | Existing Taxes | Description | | Amount/year |
|---|---|---|---|---|---|---|
| ***Taxable Sales –3,500 employees downtown Utica (post construction)*** | *City* | | | *3,500 employees X $15/day in taxable spending X 365 days = $19,162,500. 50% assumed to be net increase in taxable sales within City.* | *$9,581,250 in annualized new spending within Utica X 2% generates $191,625 in sales tax for Utica.* | *$ 191,625* |
| ***Taxable Sales – Construction Period (3 Yrs.)*** | *County* | | | | | |
| ***Taxable Sales –3,500 employees downtown Utica (post construction)*** | *County* | | | | | |

Moreover, the Project is expected to create approximately 1,050 jobs. Goods and services purchased by construction workers will create additional economic value for the community. An additional post-siting analysis was conducted by Turner Construction to estimate construction phase local tax benefits (*i.e.*, "traveling manpower" tax generation from construction workers [hotels and restaurants]). It is estimated that construction workers will spend $15,000,000 to $17,000,000 in hotels, restaurants and other purchases over the course of the construction period. Based on Oneida County's tax structure: 8.75% sales tax (4% to NYS; 4.75% to Oneida County) and an additional 2% County tax on hotel stays, the County gets 6.75% on all hotel and 4.75% on restaurant, gas, food and other sales. This equates to approximately $811,000 in estimated "traveling manpower" local taxes generated during the construction phase (Turner 2018). See Response 201.

The IHC is not anticipated to require additional services and will not require additional expenditures by the City to cover infrastructure improvements. Any expenses associated with the parking garage would likely still be necessary in connection with improvements to the NEXUS center.

**<u>Comment 246: Michael Galime, City of Utica Council President, Letter, 12/27/18</u>:**

Affected Property Owners and Businesses. At this time there have been adverse negative effects imposed on the central business district. MVEdge has stated multiple times that the district could have kept moving forward during the #MVHSDowntown campaign, however, in the case of the new Enterprise Car location, the city, property owners, and Enterprise were all sent correspondence from MVEdge to not develop their property because it will be taken.

This correspondence was prior to the filing of the Project with the OCLDC.

Moving forward how will the affected businesses be dealt with. There has not been, to date, clear discussion based on this. The central business district is home to many tax paying businesses as well as not-for-profit community support businesses. The current filings from the OCLDC are stating that PILOT agreements and possible relocation costs will be dependent on job creation.

The potential negative impact is that these businesses themselves are placed in a position of stagnancy and financial impact that they would have otherwise not had to deal with if this proposal was not floated for multiple years prior to its filing.

**Response 246:**

See Responses 32, 193, 194, 195 and 243 for a discussion on the blighted condition of the area and the nature and types of businesses located within the Project footprint. See Response 241 for a discussion on MVHS negotiations with existing owners.

**Comment 247: Michael Galime, City of Utica Council President, Letter, 12/27/18:**

Downtown Utica property is becoming a premium. Reducing the available land will increase cost and sellable value, creating a situation where current business and property owners may either not be able to expand in place, or be priced out of their current options. This should be considered part of the scoping of adverse effects.

**Response 247:**

This is a purely economic impact that is not required to be evaluated in an EIS. See *Bell Atlantic Mobile of Rochester L.P. v. Town of Irondequoit, 848 F. Supp. 2d 391, 400 (WDNY 2012)* (speculative environmental loss such as a concern for property values is not an environmental factor under SEQRA); *Nash Metalware Co. v. Council of the City of New York, 14 Misc.3d 1211(A); 2006 N.Y. Misc. LEXIS 3940 (Sup. Ct. NY Co. 2006* (potential impacts from relocation of businesses not relevant when owner is vacating under terms to which it consents). However, increased property values are an economic benefit to a community and are viewed as a positive impact.

**Comment 248: Michael Galime, City of Utica Council President, Letter, 12/27/18:**

At this point the scoping document and proposed project filed with the Oneida County Local Development Corporation does not demonstrate the financial ability to complete the proposed project. There is a potential situation where MVHS may not be able to fund the project fully and may turn to tax payer funding to bail out overruns.

**Response 248:**

This is a purely economic impact that is not relevant under SEQRA. A Lead Agency is not required to take a hard look at the economic feasibility of a project, particularly when public funding is involved. See *Kirquel Dev., Ltd. v. Planning Bd. of Town of Cortlandt, 96 A.D.3d 754, 755 (2d Dept. 2012); Tudor City Ass'n v. City of New York, 225 A.D.2d 367 (1st Dept. 1996)*.

**Comment 249: Michael Galime, City of Utica Council President, Letter, 12/27/18:**

The current statement from MVHS CEO Scott Perra, when asked how the project will be dealt with if over budget, was that the project will not go over budget. This is not an adequate answer for a project of any scale.

**Response 249:**

See Response 248.

**Comment 250: Michael Galime, City of Utica Council President, Letter, 12/27/18:**

The MVHS proposal review should not be based on other incomplete government proposals which present similar issues in site assemblage and private property acquisition.

**Response 250:**

This comment is not clear as to what other incomplete government proposals are being referenced. As a result, no response is required.

**Comment 251: Michael Galime, City of Utica Council President, Letter, 12/27/18:**

If this project is approved, it is imperative that the planning board, acting as lead agency, prove that this proposal can be completed within the scope of the current filings.

**Response 251:**

See Response 248.

**Comment 252: Stephen N. Keblish, Jr., Resident (Utica), Email, 12/27/18:**

Relocated businesses, facilities, organizations, and activities – The proposed site for the IHC is a city downtown and encompasses 25 acres. A necessary and known consequence of the proposed action is to displace or relocate (in some cases forcibly) many community assets, however planned and speculated relocations are not evaluated by the DEIS.

**Response 252:**

See Responses 26, 32, 193, 194, 195 and 243.

**Comment 253: Stephen N. Keblish, Jr., Resident (Utica), Email, 12/27/18:**

Substantive Compliance: In order to comply with SEQRA, a hard look must be given to potential negative impacts. In too many areas of concerns, the DEIS overlooks negative effects and instead focuses on potential benefits:

- Identified negative/adverse impacts In several instances, the DEIS mentions possible negative consequences, but does not offer discussion, study, or analysis of the likelihood, magnitude, or duration of those impacts:
  - Outdoor Storage of Materials ([DEIS] Page 43)
  - Bulk Storage of Oil/Fuel and/or Chemicals ([DEIS] Page 46)
  - Growth Inducing Aspects ([DEIS] Page 113)

**Response 253:**

See Response 227.

**Comment 254: Stephen N. Keblish, Jr., Resident (Utica), Email, 12/27/18:**

Minimizing negative/adverse impacts In order to avoid addressing or legitimizing negative consequences of the proposed action, the DEIS overlooks or minimizes adverse consequences rather than a straightforward approach demanded by SEQRA:

- In discussing Community Character, negative/adverse impacts are mixed in with speculative benefits to produce mixed analysis
- In discussing Growth Inducing Aspects, a consideration of negative/adverse impacts are replaced with a description of "potential additional development, which the proposed action may support or encourage"

- Negative impacts are relegated to footnotes, rather than fully addressing them. [Footnote 120: "The MVHS analysis also recognized that the project would result in a loss of City property tax income (estimated to be approximately $115,300/year)."]

**Response 254:**

It was the intention of the Legislature that the protection and enhancement of the environment, human and community resources should be given appropriate weight with social and economic considerations in determining public policy, and that those factors be considered together in reaching decisions on proposed activities. Accordingly, it is the intention of the SEQRA implementing regulations (6 NYCRR Part 617) that a suitable balance of social, economic and environmental factors be incorporated into the planning and decision-making processes of State, regional and local agencies. It is not the intention of SEQRA that environmental factors be the sole consideration in decision-making. While the main purpose of identifying and mitigating impacts is to limit or control adverse impacts, it is relevant to also identify likely beneficial effects of the proposed action. These considerations will be used by decision makers in balancing positive and negative effects in the Findings Statement. Accordingly, it is completely appropriate, and even expected, to consider both positive and negative impacts of a project.

In regard to community character, the Commenter is referred to Responses 32, 47, 60 and 144.

The purpose of the discussion of growth inducement in the EIS is to enable Involved Agencies to reach findings concerning both positive and negative effects of induced growth in the area of the proposed project. Growth in and of itself is not always negative. If the growth induced by a project is consistent with the applicable zoning and the community's comprehensive plan, it may be viewed as a positive impact that has been planned for and beneficial to the community. Here, the Project Site is located in a HUB zone; is in a former Empire Zone; is designated as a potential EJ area; and in the Urban Renewal Plan Utica Downtown Development Project Area. Per the City's Master Plan, the City's urban landscape is characterized by vacant or significantly under-utilized industrial buildings and many of its neighborhoods are either deteriorating or continuing to decline. The Urban Renewal Plan for the area encompassing the Project Site states that its purpose is "to revitalize this area of downtown." Per the Urban Renewal Plan, the "economic and physical revitalization of the project area is a critical public purpose for the community because of the area's location." Eight (8) of the properties are already owned by the City's URA, but have sat vacant and undeveloped for years. The Urban Renewal Plan authorizes the City to acquire properties by *eminent domain* for the purpose of economic redevelopment. Accordingly, this area has been targeted by the City of Utica for economic redevelopment for years making it a prime location for consideration by MVHS. Accordingly, growth is consistent with the community's plan for the area and would be a positive impact.

The temporary loss of property tax income is a purely economic impact that is not relevant under SEQRA, which is why it appears in a footnote in the DEIS. See *Bell Atlantic Mobile of Rochester L.P. v. Town of Irondequoit, 848 F. Supp. 2d 391, 400 (WDNY 2012)* (speculative environmental loss such as a concern for property values is not an environmental factor under SEQRA). Moreover, once the Medical Office Building is constructed, there will be an increase in property tax revenue to all the taxing jurisdictions. See Responses 194 and 227.

**Comment 255: Stephen N. Keblish, Jr., Resident (Utica), Email, 12/27/18:**

Missing EIS elements required by SEQRA:

- "A concise description of the proposed action, its purpose, public need and benefits, including social and economic considerations." In order to be compliant, the DEIS should address issues in a holistic approach, contemplating impacts beyond the confines of narrow definitions and in conjunction with other impacts.
    - » The DEIS admittedly ignores social and economic considerations ("Potential effects that a proposed project may have in drawing customers and profits away from established enterprises, possible reduction of property values in a community, or potential economic disadvantage caused by competition

or speculative economic loss, are not environmental factors and will not be addressed in the DEIS." Page 102)

- "A concise description of the environmental setting of the areas to be affected, sufficient to understand the impacts of the proposed action and alternatives." The DEIS offers only a very narrow understanding of impacts and alternatives.
  - » The DEIS paints an incomplete picture of the areas impacted by the project. While it does discuss potential implications to the FSLC and SEMC, it does not indicate the magnitude, likelihood, or duration of any impacts known to be caused by the closure of the hospital facilities. It does not describe the impact of having to relocate the Utica City Police Maintenance Facility, a known consequence of this project. 6 It does not describe the impacts of relocating businesses displaced by the project, another known consequence. Does not discuss the impact on the existing energy microgrid located at the St. Campus (AKA the Burrstone Microgrid).
  - » No descriptions of impacts from alternative sites are offered, merely a discussion about what was offered for hospital-programming analysis in the site selection process.

**Response 255**:

The EIS contains a concise description of the proposed Project, including the public need and benefits, as well as social and economic considerations. The specific economic impacts referenced in the comment are speculative and/or relate to economic competition. These types of economic impacts are not required to be considered in an EIS. See *Bell Atlantic Mobile of Rochester L.P. v. Town of Irondequoit, 848 F. Supp. 2d 391, 400 (WDNY 2012)* (speculative environmental loss such as a concern for property values is not an environmental factor under SEQRA).

SEQRA requires that an EIS contain an analysis of alternatives to enable the Lead Agency to determine if there is a reasonable, feasible alternative that would allow some or all of the adverse impacts to be avoided while generally satisfying the applicant's goals (see SEQRA Handbook, C. 22). As the regulatory language indicates, the "objectives of a private project sponsor are important in determining what alternatives should be considered in an environmental impact statement." See *Crossroads Ventures, 2006 N.Y. ENV LEXIS 88, at *96*. Moreover, it is not necessary for any applicant to conduct a full blown SEQRA review of each site before selecting one. See *Palczynski, 55 AD3d 1242*. See Response 26.

The DEIS did consider the potential impacts that might occur as a result of the closure of St. Luke's and SEMC. See Response 177 for additional discussion.

See Response 4 for additional discussion with respect to police facilities.

See Responses 32, 194 and 241 with respect to the nature of existing businesses and efforts to relocate them. Accordingly, there is no basis for the comment that there will be a 90% closure rate of the existing businesses.

See Response 115 with respect to the co-generation plant.

**Comment 256: Stephen N. Keblish, Jr., Resident (Utica), Email, 12/27/18**:

Unsubstantiated claims.

- "The magnitude of the acquisition of 25± acres will be large, but most of the impacts are expected to be beneficial because it will better position the hospital to serve the largest and most diverse population in Oneida County, as well as creating the potential for secondary economic development opportunities." Page 7, Project Description, under "Property Acquisition" ([DEIS] PDF page 24.)
  - » This section makes several speculative claims about unspecified economic development in unspecified locations. What kind of development, where?

   - » The site selection study awarded points to downtown for not being near a residential area, but now claims to be better positioned to serve the local population. These contradictory claims need to be sorted out or omitted.

- "Consideration was also given to additional investment potential based on the site location and the project's relation to broader downtown revitalization, neighborhood revitalization, and/or preservation features. These same interests could also result in increased fundraising for the project (in addition to the State designated allotment of $300 million)." ([DEIS] PDF page 47.)
   - » There is no evidence that fundraising has increased because of the location.
   - » Creating additional burdens on the public, especially to preserve the financial feasibility of this action, should not be characterized as incentives or benefits.
- "Based on a review of available information, all three sites are consistent with a master plan and only the Downtown and NYS Psych Center sites are near proposed BOAs."
   - » Utica Master Plan calls for development goals quite at odds with the design, requirements, and impacts of the hospital as proposed for downtown Utica.
   - » Only the Psych Center achieves Utica Master Plan and Smart Growth principles. (See Smart Growth Matrix below.)
- "The next sub-criterion examined the location of each site in relation to the surrounding neighborhood. The Downtown site was identified as the only site not situated near a residential neighborhood, whereas St. Luke's and the NYS Psych Center sites are located near neighborhoods, although creation of a buffer is possible." ([DEIS] Page 48)
   - » Downtown is near three apartment complexes and is the only site that currently contains residential space.
- "The final sub-criterion examined sustainability features as it relates to the ability to provide an energy microgrid and if it can be considered an urban infill project (vs. greenfield development). The Central Utility Building at the Downtown and NYS Psych Center sites have the potential to serve as microgrid power sources. CHP's are considered a more sustainable option for generating electric power versus relying 100% on the electrical grid. CHP's are more energy efficient and rely on cleaner sources (*i.e.*, gas turbines) reducing emissions of carbon dioxide and other air pollutants in comparison to regional power stations." ([DEIS] Page 48)
   - » The Burrstone Microgrid is already built and operating the St. Luke s site and is providing clean energy to the campus as well as Utica College.
   - » There is an additional, related unsubstantiated claim here: "Thirdly, a new, consolidated site will enable MVHS to reduce infrastructure and energy cost/consumption for decades to come."
- "While all three site options would likely comply with the State's Smart Growth Development Policy, the Downtown and the NYS Psych Center sites would be viewed more favorably if state funds are pursued to assist with the development of either of these urban sites." ([DEIS] Page 48)
   - » Downtown site promotes sprawl by 1) Reducing Density 2) Increasing reliance on cars 3) Not pedestrian and bike friendly in design 4) Does not promote historic preservation and reuse.

**Response 256**:

With respect to "economic development," see Responses 26, 32, 33, 194 and 196.

With respect to "be better positioned to serve the target population," see Responses 32, 33 and 230.

With respect to "financial feasibility," see Response 215.

With respect to "the City's Master Plan," see Responses 32, 47, 60 and 144.

With respect to "Smart Growth," see Responses 86 and 234.

With respect to "proximity to residential neighborhoods," see Response 22.

With respect to "the Burrstone Cogeneration Plant," see Responses 33 and 115.

With respect to "infrastructure and energy costs," see Responses 33, 114, 115, 118 and 123.

With respect to "pedestrian friendly design," see Responses 47, 60 and 86.

With respect to "historic preservation," see Response 63.

**Comment 257: Joseph P. Caruso, City of Utica Planning Board, Email, 12/27/18:**

**Cost to taxpayers:** I would like to know what percentage of **actual city property tax revenue** is represented by the property in the proposed hospital footprint, and how the City of Utica plans to offset the loss.

**Response 257:**

See Response 194.

**Comment 258: Steven Grant, President, LSGU, Letter, 12/27/18:**

The LSGU supports an extension of the DEIS public comment period by 60 days.

**Response 258:**

The comment requires clarification of requisite discretionary and absolute timeframes, as outlined in SEQRA and its promulgating regulations (6 NYCRR 617). SEQRA regulations allow for a minimum of 30-days for public review of an Environmental Impact Statement. The Planning Board, as SEQRA Lead Agency, included a 39-day review process; over a week beyond the minimum requirement. Electronic and hard copies of the DEIS were readily available on the City website and at identified public repositories.

In addition, the Planning Board opted to schedule an optional public hearing to provide an additional venue and opportunity for solicitation of public and agency comments. This hearing was held on December 6, 2018.

By the close of the public comment period, the Planning Board had received 17 letters representing substantial substantive comments and encompassing a variety of topics discussed in the DEIS and pertinent to the Project; the written comments were supplemented by a written transcript of the public hearing.

Based on the review of these comments by the Planning Board and Planning Board staff, it was the recommendation of staff that sufficient time was provided to facilitate and adequate review of the DEIS and that the number and nature of received comments is supportive of this conclusion.

**Comment 259: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18:**

As reflected in the attached petitions requesting an extension of the public comment period (Exhibit A; [included in Appendix B to this FEIS Responsiveness Summary]), as well as in comments from the Landmarks Society of Greater Utica, dated December 27, 2018 (Exhibit B; [included in Appendix B to this FEIS Responsiveness Summary]), the Board has afforded the public, in effect, the bare minimum of notice and opportunity for comment on what is a massive, complex project with far-reaching, significant adverse environmental implications. See, *e.g.*, 6 NYCRR 617.9(a)(3), (a)(4)(iii). The Board has allowed the public only 39 days to comment (*i.e.*, from November 19th to December 27th) – and this includes two major public holidays, one on a

Thursday (Thanksgiving), and the other on a Tuesday (Christmas). By virtue of the holidays, at least four days were effectively eliminated from the public comment period, leaving only a mere 35 days (at the most), with comments due two days after Christmas. The timeframe set forth by the Board, therefore, is nothing more than a transparent attempt to limit meaningful public input. This conclusion is further highlighted when one observes that the DEIS is a complex document that exceeds 3,500 pages. Accordingly, we maintain that the 35-day review period allowed by the Board is patently insufficient to allow for meaningful public participation in the SEQRA process.

**Response 259:**

There has been no violation of SEQRA with respect to the public comment period. The SEQRA regulations require a public comment period on the DEIS that is "not less than 30 calendar days from the date of filing or not less than 10 calendar days following a public hearing on the draft EIS." (6 NYCRR 617.12(a)(2)(iii)). The public comment period was 39 calendar days – 9 days more than the time period required by the regulations. The public hearing on the DEIS was held on December 6, 2018 and the public comment period remained open for 21 calendar days following the public hearing – again in complete accordance with the regulations.

Although the comment period fell during the holiday season, even if the two holidays were subtracted, there were still 37 calendar days available for public comment – which was still 7 days more than the time period required by regulation. Moreover, the Planning Board received 22 substantive comment letters from other State and local agencies, planning board members and those opposed to the Project. These letters were detailed and extensive; demonstrating that the public comment period was sufficient and that no extension is necessary.

**Comment 260: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18:**

Adding insult to injury, not only is the timeframe for review of the DEIS inadequate for the DEIS as it stands, in addition, the DEIS is incomplete, as certain of its appendices contain only summaries, not complete studies. See, *e.g.*, Appendix A (site selection executive summary). Although the DEIS states that "complete reports" are provided in appendices (see DEIS, p. xi), such is not the case. The Board's failure to have appended and made available to the public the entirety of supporting reports to the DEIS has likewise deprived the public of a meaningful opportunity to participate in this process.

**Response 260:**

The Hospital Site Selection Process Summary Memorandum provided as DEIS Appendix D is the only study relied on by the Board to make its siting decision. The document provided as part of DEIS Appendix A was the Certificate of Need Application submitted by MVHS to NYSDOH. Accordingly, nothing has been omitted from the DEIS that would deprive the public of a meaningful opportunity to participate in the SEQRA process.

**Comment 261: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18:**

Accordingly, the timeframe the Board has allotted for public review is inadequate to allow for meaningful public comment and must be extended. We request an extension of the public comment period by at least 60 days, and further request that the 60-day extension commence once all supporting documentation relative to the DEIS is made available to the public and the following procedural and substantive deficiencies have been corrected.

**Response 261:**

See Responses 258 and 259.

**Comment 262: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18:**

On behalf of our clients, Mr. Brett Truett and #NoHospitalDowntown, we submit the following comments on the DEIS provided by MVHS in support of its proposal to demolish culturally significant resources in downtown Utica in order to make way for the IHC.[42] As an environmental practitioner with more than four decades of experience under the State Environmental Quality Review Act ("SEQRA"), it is appalling to see how far the Applicant and its supporters have gone to subvert the purpose and intent of SEQRA. As a result, the SEQRA process is incomplete and procedurally and substantively defective. Under these circumstances, the SEQRA process should be reopened to correct these blatant defects.

**Response 262:**

The Planning Board has strictly complied with the SEQRA regulations in connection with its review of the IHC.

**Comment 263: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18:**

Per the DEIS, the IHC is proposed to be located on 25 acres in the City of Utica's Gateway Historic Canal District (the "Downtown Site" or "Project Area"). The proposed Project Area currently consists of over 80 individual properties (including businesses, community land and residences) and will result in the broad-scale displacement or destruction of 40 existing businesses and five not-for-profit organizations/facilities, as well as destruction of a host of historically significant buildings and the character of the Columbia-Lafayette neighborhood as a whole.

**Response 263:**

See Responses 26, 32, 43 and 60.

**Comment 264: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18:**

With all due respect, for the reasons detailed below, we maintain that the City of Utica Planning Board ("Board"), as lead agency under Article 8 of the Environmental Conservation Law ("ECL") and its implementing regulations, 6 NYCRR Part 617, (collectively, "SEQRA"), has engaged in a defective, incomplete and inadequate environmental review process, as to both timing and substance, thereby rendering the DEIS fatally defective.

**Response 264:**

This comment is an opinion. The Planning Board has strictly complied with the SEQRA regulations in connection with its review of the IHC.

**Comment 265: Thomas S. West, West Law Firm (on behalf of Brett Truett & NoHospitalDowntown), Letter, 12/27/18:**

We respectfully maintain, therefore, that, for the reasons set forth above, the SEQRA process must be reopened, a supplemental DEIS issued, and the aforementioned impacts seriously addressed in the public review process.

**Response 265:**

The comment does not raise any issues that require the public comment period to be reopened or a supplemental DEIS to be issued. The entire SEQRA process is an open and public process and is proceeding as required by the regulations. A draft scoping document was prepared, comments were solicited, and a final scoping document was prepared and accepted by the Lead Agency. The scoping document formed the basis for

[42] This letter supplements Mr. Truett's personal comments.

the contents of the DEIS that was prepared, accepted and released for further public review and comment. Once the public comment period ends, SEQRA requires that the Lead Agency review and respond to substantive comments, which has been done in this FEIS. A supplemental EIS is not required unless changes in the Project, newly discovered information, or a change in circumstances have the potential to result in any new, previously undisclosed or unevaluated significant adverse impacts. None of those circumstances exist here.

# Notice of Completion of the DEIS/Notice of Public Hearing

14-12-9 (3/99)-9c

**SEQR**

State Environmental Quality Review
**Notice of Completion of Draft**
**and**
**Notice of SEQR Hearing**

**Lead Agency:** City of Utica Planning Board **Project Number**

**Address:** c/o Department of Urban & Economic Development
1 Kennedy Plaza
Utica, NY 13502

**Date** 11/15/18

This notice is issued pursuant to Part 617 of the implementing regulations pertaining to Article 8 (State Environmental Quality Review Act) of the Environmental Conservation Law.
(and local law # ______ if any)

A Draft Environmental Impact Statement has been completed and accepted for the proposed action described below. Comments are requested and will be accepted by the contact person until 12/27/18 A public hearing on the Draft EIS will be held on 12/6/18; 5 p.m. (date and time) at NYS Office Bldg, 207 Genesee St. Utica, NY* (place).

*Per NYS regulation, photo ID is required to enter the building.

**Name of Action:**

Mohawk Valley Health System (MVHS) - Integrated Health Campus (IHC)

**Description of Action:**

The project consists of the construction and operation of an IHC in downtown Utica. MVHS' mission is to provide excellence in healthcare for its communities. Substantial effort has been focused on consolidating existing resources, eliminating redundancies, expanding the depth and breadth of services, improving access and elevating the quality of healthcare services in the region. MVHS has been successful in its efforts thus far, but has been constrained by age and physical limitations of existing facilities. To support goals to deliver higher quality, more effective care with better community outcomes at a lower cost, the proposed IHC will combine services from both the St. Luke and St. Elizabeth campuses. The new IHC will replace the St. Luke and St. Elizabeth campuses, reduce the number of beds in the community, and consolidate patient services to one campus. Project funding has been provided, in part, by New York State via the Oneida County Health Care Facility Transformation Program, which provided capital funding "in support of projects located in the largest population center in Oneida County that consolidate multiple licensed health care facilities into an integrated system of care." The project includes: 670,000 ± sf hospital, central utility plant, parking facilities (one municipal parking garage and multiple surface lots), medical office building (by private developer), campus grounds, utility/pedestrian bridge (over Columbia Street) and helipad. The project also involves acquisition of properties and modifications to existing public/private utility infrastructure.

**Location:** (Include street address and the name of the municipality/county. A location map of appropriate scale is also recommended.)

The MVHS IHC will encompass approximately 25-acres, which will generally be bounded by Oriskany Street (NYS Route 5S) to the north, Broadway to the east, NYS Route 5/8/12 to the west, and Columbia Street, City Hall and Kennedy Apartments to the south.

**Potential Environmental Impacts:**

The proposed project exceeds thresholds defined for Type I projects in the SEQRA implementing regulations. Type I actions carry a presumption that the project is likely to have a significant effect on the environment. The project could result in moderate to large impacts on land; surface water; groundwater; air; historic or archaeological resources; transportation; energy; noise, odor, and light; human health; consistency with community plans; and consistency with community character.

**A copy of the Draft / Final EIS may be obtained from:**

Contact Person: Brian Thomas, Commissioner, Department of Urban & Economic Development

Address: 1 Kennedy Plaza, Utica, NY 13502
http://www.cityofutica.com/

Telephone Number: (315) 792-0181

**A copy of this notice must be sent to:**

Department of Environmental Conservation, 625 Broadway Albany, New York 12233-1750

Chief Executive Officer, Town/City/Village of Utica

Any person who has requested a copy of the Draft / Final EIS

Any other involved agencies

Environmental Notice Bulletin 625Broadway Albany, NY 12233-1750

**Copies of the Draft EIS must be distributed according to 6NYCRR 617.12(b).**

Copies of the DEIS are also available for review at:
Utica City Hall, Department of Urban & Economic Development, 1 Kennedy Plaza, Utica, NY 13502
Utica Public Library, 303 Genesee Street, Utica, NY 13501

# Public and Agency Comments and Public Hearing Transcript

Bonacci

david j. bonacci, aia, principal
BONACCI
www.bonacci-architects.com
ARCHITECTS
pllc

December 4, 2018

Mr. Brian Thomas, Commissioner
Dept. of Urban & Economic Development
City of Utica
1 Kennedy Plaza
Utica, New York 13502

Re: MVHS Proposed Regional Integrated Healthcare Campus

Dear Mr. Thomas:

We respectfully request that this letter be included in the record of public comments for the above referenced project. Having reviewed the Draft Environmental Impact Statement prepared for the project, we remain convinced of the overall positive impact of the proposed Healthcare Campus and hereby state our continued enthusiastic support. As a business owner and resident of downtown Utica, I anxiously await and welcome this addition to our city and our region.

Yours truly,

David J. Bonacci, AIA

c: Mayor Palmieri
Anthony Picente, Jr.

formerly FULIGNI•FRAGOLA/ARCHITECTS pllc

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110 fulton street, utica, new york 13501 • V 315-797-8666 • F 315-735-3605
e-mail: studio@bonacci-architects.com

Paciello

Utica City Planning Board
1 Kennedy Plaza
Utica, NY 13502



Gentlemen:

Although it was stated that public comments can be made about the new hospital, will any decisions change? Although there are many of us who have previously voiced our opinions and it has not made any difference, I will again voice mine. First and foremost, I am not opposed to a new hospital. The plans are impressive and definitely will benefit our health care. However, I believe that it is not in the best interest of the people of this area to locate this facility in downtown Utica.

I have read through the impact study and there are many areas of grave concern.

1. With this new proposed plan, there will be streets that will be cut up and streets lost to the public. It is difficult to navigate that area of the city now and this will certainly impede it more. I was born and raised in Utica and have seen the different road changes. Recently, they opened up Lincoln Ave after being closed to Burrstone Road for many, many years in order to help movement but then closed off making a left turn from Sunset Ave. onto Court St. unless you exit from the North-South Arterial.

2. The infrastructure that has to be replaced is massive. Is Utica going to fund new sewer and water piping? What will be the monetary impact to the taxpayers as well as the physical impact upon the current continuing residents of that area, while they try to undertake replacing all the necessary piping?

3. Concern about the lighting was mentioned. The lights from the hospital, parking lots, helipad, etc. will certainly create a very large section of light. How will this affect the other residents of the area? Where the hospital is currently located does not affect the other residents of the area.

4. The tax situation has been minimized greatly. There is mention of all the new businesses that having the hospital in this area will create. I disagree. There has been no increase in businesses around the current three hospitals.

Furthermore, exactly on what land or buildings do they think these new businesses will be located? In the late 1960's urban renewal took down a great portion of buildings in downtown Utica in order to revitalize downtown. It did not fare well then and I believe it will not fare well now. Many small businesses come and go. Has there really been a major gain in businesses? Claims have been made that there will be increased traffic in the area and tax money will be generated. That claim would suggest that the population of the area would increase. If you study the census numbers that again is not true. As an aside, the OD published a picture in their paper on 12/9/18 showing the 22 acres taken down in 1958 for the first urban renewal. Certainly if this had been successful, it wouldn't be necessary to do it again.

5. Parking will be difficult. It is difficult now to find a parking space and I think this difficulty will only increase. In the past there was a paid parking garage for St. Elizabeth's hospital. It did not fare well because the population in this area does not have the means to pay.

6. Building within a red zone surrounding the railroad is not recommended. This potential hazard has been minimized with the statement, "We've never had a problem." Well there is a first time for everything. If there were an emergency, how will you quickly evacuate patients from such a tall structure and where will you evacuate to?

7. This new hospital will be landlocked. Currently, Faxton and St. Elizabeth's hospitals are landlocked. Faxton has purchased many houses and taken them down to create parking. St. Elizabeth's created parking using a beautiful front lawn. This was needed in spite of having a parking garage. What will happen when more space is needed? More eminent domain? They can successfully build on the current St. Luke's site without being landlocked. The original St. Luke's hospital on Whitesboro St. was replaced because they ran out of space.

8. How many jobs will be lost when you consolidate three buildings into one facility? What is the number of employees who will be let go?

9. When the old buildings are taken down there is sure to be asbestos and lead. The air quality for the people who live in that area is surely going to be

affected. Although, this will be short term, for some it might be all they need to develop severe illnesses in the future.

10. What will be the cost to the taxpayers to replace the businesses that are being displaced? What are the amounts of money lost in tax revenue? To keep businesses and hopefully encourage new business, incentives are being offered whereby they will not pay taxes for five years then slowly increase to where they will pay full property taxes at ten years. Again, this is tax revenue lost in the short term in the hope of gaining in the long term but there is no guarantee that they will stay.

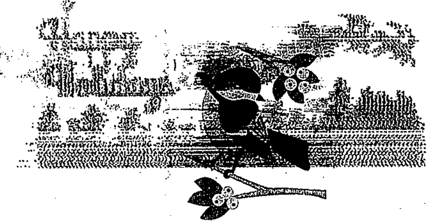
In conclusion, I think it would be in the best interests of our health care for this new facility to be built at the current St. Luke's site. This new site is within five miles from the current site. The stipulation that the new hospital has to be built in Utica is just all about politics. What would happen if the hospital asked if they could change this stipulation? Even the point system that was used in the evaluation of all three sites, are within 7 points of each other. That, in my opinion, appears to be very minor with the pluses and minuses cancelling each other. The politicians cannot seem to think past $300 million dollars. That money is a short term gain.

Linda K. Paciello, Ph.D.

Linda K. Paciello, Ph.D.

L. Paciello
6 Croft Road
New Hartford, NY 13413

SYRACUSE NY 130




Utica City Planning Board
1 Kennedy Plaza
Utica, NY 13502

13502-423401

MVHS

December 20, 2018

**Statement submission by the Mohawk Valley Health System Board of Directors for inclusion in the Draft Environmental Impact Statement for the State Environmental Quality Review related to the new MVHS Integrated Healthcare Campus.**

As the Board of Directors for the Mohawk Valley Health System (MVHS), a not-for-profit entity, we are charged with serving the healthcare needs of the public. Our mission, to provide excellence in healthcare for our communities, is what guides us in all decisions, including the location of the new, regional healthcare campus.

Our decision, to locate the new healthcare campus in Downtown Utica was made after extensive research and studies were performed. Criteria analyzed in these studies included access to the site by the populations we serve, environmental impacts and infrastructure requirements. An initial study was performed by Elan Planning, Design, & Landscape Architecture, PLLC (Elan) and O'Brien & Gere Engineers, Inc. (OBG), which prepared a comprehensive site evaluation of 10+ sites within Oneida County that could support a replacement facility. That report, issued on June 12, 2015, recommended the downtown Utica location.

Subsequently, Hammes Company, who we began to engage in December 2014, provided a second opinion on the site recommendation of the initial study. After performing a comprehensive review of the report, Hammes confirmed the recommendation of the downtown site as the best option for MVHS to pursue.

The New York State legislation that allocated $300 million for the project requires that the new facility be located within Oneida County's largest population center. The downtown Utica site meets this condition. MVHS was awarded the $300 million Health Care Facility Transformation Grant in April 2017 by the New York State Department of Health (NYSDOH) and the downtown location was crucial to MVHS receiving that grant. Without this grant MVHS would not be able to financially support building a new healthcare campus.

On July 23, 2015, the MVHS Board of Directors unanimously approved the downtown location for the new, regional healthcare campus. The healthcare needs of our community are our priority and at the center of all we do. We chose downtown Utica after an extensive a review of all the information presented to us and our belief that the downtown Utica site would best serve the healthcare needs of our community for many years into the future.

Mohawk Valley Health System Board of Directors

NAACP

| | |
|---|---|
| **From:** | Brian Thomas |
| **To:** | Steve Eckler; "kbennett@bsk.com" |
| **Cc:** | Chris Lawrence |
| **Subject:** | FW: [EXTERNAL] MVHS Project |
| **Date:** | Thursday, December 27, 2018 9:02:59 AM |

City of Utica, New York
Department of Urban & Economic Development
Brian Thomas, AICP - Commissioner
1 Kennedy Plaza
Utica, New York 13502
(315) 792-0181 phone
(315) 797-6607 fax

**From:** Venice Ervin [mailto:vervin@mvcaa.com]
**Sent:** Wednesday, December 26, 2018 7:13 PM
**To:** Brian Thomas <bthomas@cityofutica.com>
**Subject:** [EXTERNAL] MVHS Project



Mr. Thomas,

I met with other residents from the Utica community to hear and see the proposed plan for the hospital. I know that it is a great opportunity for residents in the Mohawk Valley, to receive excellent health care at this state of the art hospital. Building the hospital downtown makes a lot of sense and falls in line with cities nationwide that are making hospitals excessible to residents in downtown areas. Utica is a great city that needs to become greater to keep our college graduates interested in the jobs that we continue to make available, with the different projects slated to be built in our city.

I look forward to our community growing in stature in NY State, as we move forward with the construction of the hospital within City Limits of our great area.

Venice A. ErviN
President
Utica/Oneida County Branch NAACP

Montecalvo

Frank Montecalvo
Attorney at Law
202 Comenale Crescent
New York Mills, New York 13417
Telephone 315-570-3535
frankmontecalvo@roadrunner.com

December 26, 2018

City of Utica Planning Board
1 Kennedy Plaza
Utica, NY 13502

Attention: Mr. Brian Thomas, Commissioner
City of Utica, Department of Urban & Economic Development

Ref: Draft Environmental Impact Statement (EIS), Mohawk Valley Health System (MVHS, the Applicant) Proposed Downtown Utica Hospital (the Project)

Dear City of Utica Planning Board:

This letter responds to the Utica Planning Board's call for public comments on the above-referenced document. Mine are attached, divided into four parts:

- Part I The Site Selection Process.
- Part II Relevant Environmental Concerns.
- Part III Matrix St. Luke's Campus vs Downtown (using regulatory environmental criteria)
- Part IV The SEQRA Process & Conclusion

As detailed within, the Draft EIS contains incorrect and misleading information, omits relevant information, and dismisses or fails to develop certain topics. While its flaws are many and in need of correction, its Fatal Flaw is that it does not consider re-siting the Project to the St. Luke's Campus as avoidance or mitigation of the many significant environmental impacts that are evident. Simply, the Draft EIS is incomplete and does not provide a rational basis for the Planning Board or any Involved Agency to make the findings required by the State Environmental Quality Review Act (SEQRA) that adverse environmental impacts are avoided or mitigated to the maximum extent practicable.

Thank you for your attention to these matters.

Very truly yours,

Frank Montecalvo

Attachment: Montecalvo Comments
Via HAND DELIVERY and E-Mail bthomas@cityofutica.com
CC: Distribution List (Not attached)

**Part I. The Site Selection Process:**

This issue is addressed in the Draft EIS in Section 2 and Appendix D.

A. The Study vs. a Summary:

The Applicant was requested numerous times to disclose the **Site Selection Study** it relied upon in choosing the Downtown site. Instead, the Draft EIS supplies only a "Summary Memorandum" of the site selection process (and only in draft form). This appears at Appendix D to the Draft EIS.

**The Applicant needs to submit the actual study its Board relied upon rather than a summary, so the Public and relevant authorities do not have to speculate on what was left out.**

B. The Need for a New Site:

When Applicant announced in September, 2015, that it had chosen to build the Project at the Downtown site, it also stated that "*In the event the downtown site proves not to be financially viable, we will move on to our second site option at the St. Luke's Campus, which the board feels will also serve the community well."* This is an admission that the Project is feasible at the St. Luke's Campus in New Hartford.

Since an applicant under SEQRA cannot be made to consider sites it does not own (see 6 NYCRR 617.9(b)(5)(v) ('g')), **the Draft EIS needs to explain why the Applicant felt compelled to do so.**

C. The Lack of Public Engagement:

Applicant's Project depends upon a grant provided under Public Health Law (PBH) Section 2825-b. The grant application will be judged on "the extent to which the applicant has engaged the community affected by the proposed capital project and the manner in which community engagement has shaped such capital project." (PBH 2825-b (4)(f)). **The Applicant never at any time engaged the Public on the proposed location of the Project.** In fact, there is evidence that local officials deliberately kept the discussion of facility location away from the Public (See word-searchable e-mail 'dump' or images, 9/1/15 e-mail, Anthony Brindisi to Steven DiMeo and Anthony Picente: *"I don't want public opinion derailing this."*) Had the Applicant engaged the Public at the site selection stage, Applicant would have been able to develop appropriate siting criteria to address the Public Interest (e.g., convenience of the Public to access current medical providers and the new facility, loss of businesses and taxable properties, disruption to traffic patterns, need to construct new municipal facilities and public infrastructure, changes to community character, facility location relative to transportation of hazardous substances, etc.).

**Given PBH 2825-b(4)(f), if the Applicant continues to pursue a site other than St. Luke's Campus, it needs to reopen the site selection process for Public Input and to develop appropriate criteria for choosing a site that protects the Public Interest.**

D. Inconsistent Screening of Sites:

The Summary Memorandum states that a Geographic Information System analysis was initially used to "identify parcels 50 acres and larger that could potentially host a new combined facility". Of the 12 sites subsequently considered for "fatal flaws," an exception to the above rule appears to have been made for the Downtown Site because it is neither a "parcel" (actually being about 90 parcels as shown on County ownership maps) nor is it 50 acres (actually being from 17 to 34 acres depending upon how the site is defined). Since the other 11 sites (e.g., 5 of them are golf courses) more closely match the 50-acre-parcel rule, the Downtown site is dissimilar to the others.

**The Applicant needs to explain why an exception was made to its 50-acre-parcel site-screening rule to put the Downtown Site on the list of sites to be considered, otherwise its placement on the list appears arbitrary.**

E. Fatal Flaw Analysis – Land Use History:

According to the Summary Memorandum, the 12 sites were screened for "fatal flaws" – "factors that could impact the development potential of the site." The Downtown Site is currently occupied by some 40 entities including Private Businesses, Not-For-Profits, and a Municipal Police Garage. It is also occupied by streets that would have to close to accommodate the Project. The Site has been in use for nearly 200 years. The length and level of use of the Downtown Site (detailed in Appendix E of the Draft EIS), which could be expected to complicate any redevelopment, make it markedly dissimilar to the other sites which are mostly outside the urban core.

**The Applicant needs to explain why the current and past history of uses were not considered a "fatal flaw" that would warrant rejection of the Downtown Site, otherwise its "fatal flaw" analysis appears arbitrary.**

F. Fatal Flaw Analysis – Existing Plans and Rules

The current occupants and uses of the Downtown Site reflect almost 200 years of official City of Utica decision-making (ranging from zoning and street layout to lot sizes). Applicant's proposal to replace the Columbia-Lafayette neighborhood with a campus of medical buildings, parking facilities, and discontinued streets is inconsistent with these prior decisions. The Gateway Historic Canal District (which covers the Downtown Site) has a plan and design requirements that were adopted in 2005. The Utica Master Plan of 2011 and its 2016 Update, were officially adopted to guide future development within the City. None of these call for a transformative change to the Columbia-Lafayette Neighborhood. Neither the Applicant, nor its consultants, nor the elected/non-elected persons/officials who want the hospital Downtown (see K., *infra*) have the legal authority on their own to change Utica's official plans, ordinances, etc.

**The Applicant needs to explain why the existing laws and plans etc. were not seen as a "fatal flaw" that would require rejection of the Downtown Site, otherwise its "fatal flaw" analysis appears arbitrary.**

G. Fatal Flaw Analysis – Objectives of PBH 2825-b:

The Applicant currently operates two hospitals (St. Elizabeth's and St. Luke's) and a number of other facilities in the Utica area. The largest facility is St. Luke's Hospital in New Hartford with 370 inpatient beds (**in**clusive of 24 physical medicine and rehabilitation beds co-located in a separate building on the St. Luke's Campus with a 202 bed nursing home). Applicant proposes to use the grant provided under PBH 2825-b to consolidate and reduce beds from its 201-bed St. Elizabeth's Campus (SEMC) with those from St. Luke's into a new facility that would have 373 beds (**ex**cluding the 24 physical medicine and rehabilitation beds, which would remain in their current location at St. Luke's) (see Draft EIS p173/3527). In spite of the consolidation of hospital beds from two facilities, the Applicant proposes to maintain some functions at both the St. Elizabeth's and St. Luke's Campuses.

The St. Luke's Campus qualifies for funding under PBH 2825-b because, being on Utica's western boundary, it is located in Oneida County's "largest population center," the wording of the law deliberately not restricting funds to the City of Utica. As noted under B., above, Applicant acknowledged that the Project is feasible and *would* be built on the St. Luke's Campus if it could not be done Downtown. If the new facility were to be constructed at the St. Luke's Campus instead of Downtown, it would represent an increase of only 27 hospital beds (about 7%) on that site. In this regard it is also noted that the St. Luke's Home on-site has already *reduced* its long term care beds by 40 (Draft EIS p653/3527). While long term care beds may not be the same as hospital beds, it suggests that even with the addition of beds transferred from SEMC, the overall use of the St. Luke's Campus with a combined hospital facility would be less intense than it had been in the past.

The Project is supposed to be judged upon the extent to which it "will contribute to the integration of health care services and long term sustainability of the applicant..." (PBH 2825-b (4)(a)). Focusing on (4)(a)'s "sustainability" clause, creating an additional campus Downtown for the Applicant to build and maintain intuitively seems to contradict this goal. Intuition, however, appears substantiated by Applicant's own numbers which reveal that, in spite of a projected reduction of 184 employees, there will be an almost 33% INCREASE in the number of employees PER BED from about 4.75 before consolidation to at least 6.3 after consolidation. (See the number of beds cited above and Applicant's pre and post consolidation employee estimates at Draft EIS pp589-90/3527).

Focusing on the "integration of health care services" clause of PBH2825-b(4)(a), placing an additional 2 miles between a new hospital Downtown and Applicant's 24 bed rehabilitation and 202 bed skilled nursing facilities remaining at St. Luke's seems contrary to both the "integration" required by (4)(a) and PBH 2825-b's general purpose to "consolidate multiple licensed health care facilities..."

The Project is also to be judged on "the extent that the proposed capital project furthers the development of primary care and other outpatient services..." PBH 2825-b (4)(d). The presence of St. Luke's Hospital has spawned a *de facto* medical district of providers in the Utica Business Park and along Burrstone and French Roads (e.g. Slocum-Dixon Medical Group, Omni Surgical Center, Mohawk Valley Endoscopy Center). Removal of the anchor institution, St. Luke's Hospital, to Downtown Utica will result in less convenience for the medical providers and their patients, reduce opportunities for collaboration, and appears contrary to the intent of PBH 2825-b (4)(d).

**Since it acknowledges the feasibility of putting the Project on the St. Luke's Campus and its plan to retain at least some services both there and at SEMC, the Applicant needs to explain why the purpose and provisions of** PBH 2825-b **were not seen as a "fatal flaw" to the Downtown Site (and to any site other than St. Luke's Campus), otherwise its "fatal flaw" analysis appears to be arbitrary.**

H. Arbitrary/Subjective Criteria and Ranking Scheme:

After most of the sites were eliminated due to "fatal flaws" the Summary Memorandum indicates that the remaining three (St. Luke's, Downtown, and the Psych Center) were scored based on points assigned for certain criteria. As noted under C, above, the Applicant made no effort to determine criteria to protect the Public Interest. **The criteria that were chosen appear arbitrary/ subjective.** For example, proximity to the Thruway and Oriskany Blvd. is deemed important, but proximity to the Parkway/Pleasant/Burrstone corridor that would collect traffic from Corn Hill, South East Utica, and northeastern Town of New Hartford; and French Rd./Champlin Ave. that would collect traffic from South Utica and New Hartford Village, is not. Distance to employees (using zipcode "centroids" rather than actual distances) is deemed important, but distance to actual patients is not, and distance to medical providers is not.

**The scoring appears equally arbitrary/subjective.** Two points are assigned to Downtown for having a "Potential microgrid opportunity," while St. Luke's received no points for actually having a microgrid (the Co-Gen Facility). Why were 4 points not deducted from Downtown for the 2500 foot gas line referenced on Draft EIS p. 94/3527? Why was a point not added to St. Luke's for not encroaching on a potential federal wetland when the Draft EIS' "Capacity Analysis" (p. 1596/3527) demonstrates project elements could be arranged on-site so as not to encroach on the wetland? As previously indicated, the criteria have not been related to the purpose, objectives and goals of PBH 2825-b . In so far as the environmental criteria are concerned, they appear selective, subjectively scored and inadequately explained and have not been related to the legal requirements of SEQRA (as detailed under Part III, *infra*) to avoid/minimize environmental impacts or of other provisions of the Environmental Conservation Law. Applicant's choice of St. Luke's rather than the 2nd-ranked Psych Center as its "second option" suggests that even Applicant believes that the scoring process was arbitrary and subjective.

**In light of the above, the criteria and scoring provisions of the site selection process appear to have been arbitrarily chosen and calculated to achieve a predetermined result, making them unreliable for decision-making.**

I. Capacity Analysis: A "conceptual capacity analysis" was performed on the top three sites to, essentially, position the elements of the Project on those sites. Interestingly, the analysts chose to distinguish an "urban site" (with a 10 acre requirement) from a "suburban site" (with a 45 acre requirement) without explaining why an urban configuration of elements could not be employed on a suburban site to conserve space, avoid environmental impacts, and allow for future growth. Although an answer to the question "What is the cost premium of the recommended site?" is promised, it appears no where. (Draft EIS p. 39/3527, and Appendix D). **Again, the selection of data and conclusions presented appear to be arbitrary and unreliable for decision-making.**

J. The Site Selection Process' failure to incorporate 6 NYCRR 617.7(c)(1) criteria makes the Draft EIS incomplete and insufficient to support SEQR findings.

All levels of government that will fund and/or approve aspects of the Project are obliged to make a SEQR finding that the project will avoid or minimize adverse environmental impacts to the maximum extent practicable (etc.). All draft environmental impact statements must contain "a description and evaluation of the range of reasonable alternatives to the action that are feasible, considering the objectives and capabilities of the project sponsor. . . The range of alternatives may also include, as appropriate, alternative: (a) sites . . ." (6 NYCRR 617.9(b)(5)(v)(a)).

While an applicant cannot be made to consider sites it does not own or have under option as an alternative (see 6 NYCRR 617.9(b)(5)(v) ('g')) (i.e., the Applicant here could not have been made to consider Downtown as an alternative), where an applicant, as the Applicant here, admits that it owns a site that meets all its objectives and capabilities, a government agency could not honestly make its SEQR finding if it appeared that the owned-site might better avoid/mitigate adverse environmental impacts.

The State has promulgated a non-exhaustive list of such adverse environmental impacts in 6 NYCRR Part 617.7 (c)(1). The **Site Selection Process failed to incorporate these criteria** into the analysis of site alternatives to permit the determination of which sites best minimized or avoided adverse environmental impacts (see Part III *infra*)

**Failure to include this analysis is fatal to going forward on the Downtown choice because at this point the record is incomplete for the purposes of supporting a SEQR finding. The EIS needs to supply this information and be able to support a conclusion that the Downtown Site better minimizes/avoids environmental impacts.**

K. Undue Influence:

Various e-mails (see e-mail 'dump' or images) exchanged in January and February 2015 (about the time that the PBH 2825-b funding was announced) among County Executive Anthony Picente; former State Senator, County Executive and current counsel to MVHS Raymond Meier; Lawrence Gilroy, Co-chairman of the Mohawk Valley Regional Economic Development Council (MVREDC); Mohawk Valley EDGE (MVEDGE) President Steven DiMeo and Assemblyman Anthony Brindisi; reveal that this group of individuals, who are effectively the local "gate-keepers" controlling Applicant's access to the State's Grant apparatus, wanted the Project to be located Downtown for urban renewal purposes and that they would try to steer the process to that end.

Relevant to this is the 2/3/2015 e-mail from Mr. DiMeo to Mr. Brindisi wherein Mr. DiMeo stated:

*" … My whole thought process in bringing Elan on board is **to make sure that we guide siting decision in favor of downtown..."** [emphasis supplied].*

MVEDGE hired Elan to do the site selection study, and the Summary Memorandum was provided by MVEDGE, Elan, and O'Brien & Gere (OBG, also author of the Draft EIS).

Also relevant is the 11/5/2015 e-mail from Mr. Brindisi to Mr. DiMeo, wherein Mr. Brindisi stated:

*"… I feel like walking away from this whole thing and telling the community and hospital if you don't want this thing downtown then good luck at St Luke's and don't come see me for one ounce of state support ..."*

Against the backdrop of a Summary Memorandum that shows an inconsistent and somewhat arbitrary process, the still-secret status of the siting study, and Applicant's voluntary designation of St. Luke's Campus as its 'second option,' **the e-mails suggest that the site selection process may have been tainted by undue influence and that the conclusions and recommendations of the site selection process, to the extent reported in the Draft EIS, reflect this influence and must be discounted accordingly.**

L. Conclusions regarding Site Selection:

**The Applicant is unable to proceed on the Downtown Site in light of its ownership of a satisfactory site at St. Luke's Campus, and the lack of data in the EIS to support a conclusion that the Downtown Site better avoids/minimizes adverse impacts than the St. Luke's Campus – which is unlikely given the analysis in Part III below.**

**Applicant's choice of its St. Luke's Campus as a "second option" is supportable on the existing record because it already owns the site and cannot be made to consider sites it neither owns nor has options upon. If the Applicant wants to proceed with the Project on the St. Luke's Campus, it would accordingly have to revise its designs and the EIS.**

(continued)

**II. Relevant Environmental Concerns**

**A. Impact on Land:** This topic is addressed in Draft EIS Section 3.1. Exposure to impacted soils due to past urban use is recognized to be a concern. The EIS needs to acknowledge that this **concern could be mitigated by Relocation of the Project to the St. Luke's Campus** due to the relative lack of prior development there.

**B. Impact on Surface Water**: This topic is addressed in Draft EIS Sections 3.2 (Surface Water) and 3.9 (Utilities). Section 3.2. acknowledges that segments of the Mohawk River and Barge Canal down gradient from the Downtown site have impaired water quality, that runoff from the site could impact surface water, and that certain measures can be employed to mitigate these impacts. The following issues remain to be addressed, however:

1.) Section 3.9 states that the new facility is expected to generate 187,000 gallons per day (gpd) of waste water; however, it also states that facility average water demand will be 500 gallons per minute (gpm), which equals 720,000 gpd. The 533,000 gpd difference between what is going into and what is coming out of the facility is unaccounted for, suggesting that the facility could potentially generate as much as 720,000 gpd (500 gpm) of waste water. Since that amount would be greater than the 360 gpm design flow that the local Publicly Owned Treatment Works (POTW) indicated it could accept (Draft EIS p3525/3527), **there is a potential violation of the Clean Water Act that needs to be resolved.**

2.) Assuming that the POTW has sufficient capacity to handle the wastewater from the facility, it is not clear from the Draft EIS that all the wastewater will reach the POTW due to the combined sewers and Combined Sewer Overflows (CSOs) that exist in the City of Utica. As noted above, the facility will be a significant new source of waste water in Utica. The route that the waste water will take from the facility to its ultimate disposition in the environment needs to be identified and traced. The illustration of the sanitary sewers proposed to serve the facility (Draft EIS p98/3527) does not show the ultimate disposition point. If the facility's wastewater at any point flows past a CSO, some of it could end up in the River or Canal untreated, further impairing water quality, possibly causing a violation of the Clean Water Act, and/or leading to a reclassification of the CSO as an illegal Sanitary Sewer Overflow (SSO), which would lead to an environmental enforcement action against the City of Utica. **The EIS needs to clairify where the wastewater will wind up and whether it would exacerbate water quality impairment.**

3.) Given the recent demolition of the Tartan Textile Building to make way for the Nexus Sports Center, the sports-and-entertainment "U District" envisioned for the area next to the Auditorium and across Oriskany Boulevard from the Project site is no longer speculation. **The potential generation of waste water and runoff from the U District needs to be examined with all the above as a Cumulative Impact.**

4.) **The Draft EIS fails to consider relocation of the Project to the St. Luke's Campus as mitigation**. (a) The number of patient beds will be close to those currently/historically on site, suggesting that the Project environmentally would be the replacement of an existing facility on site with no new impacts other than construction/demolition. (b) The federal wetland on-site naturally buffers surface water impacts. (c) Redirection of all sanitary waste flows through the Sauquoit Creek Pump Station will mean that no untreated waste will reach the River/Canal once current Consent Order work is completed. (d) There are no pending large projects near by that would cause cumulative impacts.

**C. Impact on Groundwater:** This topic is addressed in Draft EIS Section 3.3. The presence of impacted groundwater from prior industrial uses is mentioned as a concern. The EIS needs to acknowledge that this **concern could be mitigated by Relocation of the Project to the St. Luke's Campus,** due to the lack of prior industrial uses there.

**D. Impact on Flooding**: This topic is inadequately addressed in Draft EIS Section 3.2.

1.) On July 1, 2017, significant flooding (causing abandonment of cars, risk to human life, and property damage) occurred on a newly reconstructed and re-opened section of the North-South Arterial and adjacent Lincoln Avenue in an area labeled "area of minimal flood hazard" on the federal map. Per media reports State DOT officials claimed that their drains worked properly but indicated there was insufficient capacity in the storm sewers or receiving stream to prevent the flooding from occurring. This flooding occurred approximately one half-mile from and at a higher elevation than the Project site. The Draft EIS mentions this event (p 57/3527) but fails to elaborate on it in spite of the concern being identified during Scoping. The Project description indicates that some existing storm sewers will be removed, some will be used, and others will be constructed. However, **the Draft EIS fails to reveal whether the Project will depend upon any of the systems that were overwhelmed by the 7/1/17 storm. That information should be put in the final EIS.**

2.) The Draft EIS acknowledges that full build out of the Project has the potential to increase stormwater runoff and exacerbate downgradient flooding during storms (p. 60/3527) but dismisses the issue with a statement that the Project will result in more pervious surfaces than now (implying less runoff). The Project's acres of new, unbroken pavement are expected to have a different water retention characteristic and likely will be less able to retain/slow/infiltrate runoff than the existing patchwork of old/broken pavement, sidewalks, roofs, yards, etc. Whether or not flooding will actually occur cannot be known without calculations using surface characteristics, areas, and design storms. **The EIS should use the rainfall pattern of the 7/1/17 storm to produce a hydrograph of the runoff, and use same to determine if the storm sewers and streams serving the Project site have the capacity to carry away the storm water to the Mohawk River/Canal without creating urban flooding.**

3.) Runoff from the proposed **"U-District" adjacent to the Downtown site must be addressed** as a cumulative impact.

4.) The Draft EIS fails to consider **relocation of the Project to the St. Luke's Campus as mitigation**. (a) The number of patient beds will be close to if not within those currently/historically on site, suggesting that the Project environmentally would be the replacement of an existing facility on site with no new impacts other than construction/demolition. (b) The wetland on-site is a natural flooding buffer. (c) The 7/1/17 storm caused no flooding at or near the St. Luke's Campus. (d) There are no pending large projects near by that would cause cumulative impacts.

**E. Impact on Air**: This topic is addressed by the Draft EIS in Section 3.4.

1.) **Fugitive emissions from regulated materials and impacted soils** is acknowledged as a potential concern during construction (Draft EIS p. 67/3527). **Relocation of the Project** to the St. Luke's Campus should be considered to mitigate this concern due to the lack of prior industrial uses at that location.

2.) The Draft EIS acknowledges that the Project's road closures could increase emissions from **mobile sources** (p. 64/3527). **Relocation of the Project to the St. Luke's Campus** should be considered to mitigate this concern because road closures would be unnecessary at the St. Luke's Site.

**F. Impact on Aesthetic Resources including Lighting**: This topic is addressed by the Draft EIS in Section 3.5. It acknowledges the types of buildings currently on the Downtown site, that they will be replaced with more modern looking structures, and that the new structures will be consistent with the appearance of the renovated Utica Aud and what is planned at Harbor Point. However, the determination of appropriate aesthetics at the Downtown site has been standardized by the **Gateway Historic Canal District Design Standards** adopted in 2005. Although the Applicant acknowledged the existence of these standards in its CON application (i.e., noting a height limitation of 7 stories/70 feet on Draft EIS p. 373/3527), the Draft EIS failed to apply the standards. At 9 stories, the **Project exceeds the acknowledged height standard** making it an aesthetic impact requiring mitigation. This could be accomplished by:

1.) **Redesigning** the Project to conform to Gateway Historic Canal District Design Standards, or

2.) **Relocating** the Project to the St. Luke's Campus where the standards do not apply and the building form is consistent with what is already on-site.

Another short-coming of the Draft EIS is the failure of its artist renderings to show the Project **in context with surrounding buildings from important vantage points**. Utica has a distinctive and unique skyline perhaps best appreciated driving south on Route 12 Arterial or east on Oriskany Boulevard. The Arterial/Oriskany Boulevard interchange is an important Gateway to Downtown. Travelling east on Oriskany Blvd. as one emerges from under the interchange, the skyline of Utica is revealed, 'up close and personal' on the right with prominent architectural examples such as the Adirondack Bank Building, Grace Church, State Office Building, new Bank of Utica clocktower, City Hall's 'Tower of Hope,' and M&T Bank's "Gold Dome" alternately coming into view. These buildings are also viewable as one travels south on Rt. 12 over the interchange. From either vantage point, the Project's massive, lengthy, 9-story "slab," out-of-scale with the neighborhood and street-grid, and placed across Cornelia St,. will block these views.

*(From Google Maps. Eastbound Oriskany Blvd emerging from interchange. This viewshed is better appreciated in-person from different points while driving, without Google Map's distorted perspective).*


*(From Google Maps. Southbound Rt 12 passing over interchange. This viewshed is better appreciated in-person from different points while driving, without Google Map's distorted perspective).*

**G. Impact on Historic and Archeological Resources**: This topic is addressed by the Draft EIS in Section 3.6 as well as in Appendices E and H. The Draft EIS acknowledges and extensively documents the **existence of sites of Historic or Archeological significance within the Downtown site** which may be disturbed/destroyed/adversely affected by the Project, including sites on the National Registry, sites eligible for the National Registry, sites listed in the Downtown

Genesee St. Historic District, and sites related to operation of the Erie/Chenango Canals. The Draft EIS **postpones definition of mitigation** measures pending further study, consultation with, and action by OPRHP to prescribe measures to mitigate impacts to known and unknown historic properties; but anticipates such measures to include further assessments/testing of properties, etc. (which might be characterized as documenting what is there and saving some artifacts before structures are destroyed). The Draft EIS needs to acknowledge that **impacts to Historic and Archeological Resources may be avoided by relocating the Project to the St. Luke's Campus.**

**H. Impact to Transportation:** This topic is addressed by the Draft EIS in Section 3.7. It acknowledges various potential construction and operational traffic impacts, describes current streets, presents current and anticipated traffic Levels of Service (LOS) for various intersections, and proposes forms of mitigation.

1.) As detailed in the Draft EIS (pp 90-91/3527) the Project will cause a deterioration in LOS for several intersections (i.e., the Project will cause unacceptable traffic delays at certain intersections for certain movements according to the ratings). Although changes to signals etc. are proposed as mitigation, no evidence is presented to demonstrate that these will decrease the delays or otherwise improve LOS. Therefore, **there is an unavoidable adverse impact to traffic.**

2.) **What the traffic analysis methodology, and the minutiae it generated, failed to capture – and what the EIS must acknowledge – is the broader concept of a Street Grid -- that the Project will destroy a portion of the Grid, and that this could have unintended and unpredictable social, economic, health and environmental consequences.**

Like the honey-comb structure of a hive serves the purposes of bees, street grids are a tried-and-true method of organizing the urban environment for human efficiency, which go back millennia. The *raison-d'etre* of cities is to permit humans to be in close proximity to and interact with each other. Street grids promote that interaction by organizing human movements into predictable patterns and giving persons access to each other. Disrupting the grid disorients travel, creates barriers to movement, and has the effect of increasing the distance between people -- undermining the purpose of city existence. Places once easily accessible become hard to reach, lessening their usefulness. A two block trip becomes four – or more. An easily missed turn becomes an opportunity lost when a customer can no longer simply go around the block. More energy than necessary is expended, and more pollution is created.

The Draft EIS (pp.83-4/3527) recognizes that Lafayette and Columbia Sts. are urban major collector streets which connect places outside the study area. The EIS needs to acknowledge that they both run generally east-west and are parallel and redundant to each other as part of a grid. Redundancy is a benefit of the grid best appreciated when a street is temporarily blocked, but one can go around the blockage by moving over one block. This is a common occurrence on Columbia St. by delivery trucks, easily managed by using Lafayette St. instead. When the hospital permanently closes blocks of Lafayette St., the redundancy will be lost.

Cornelia St. runs roughly north-south, roughly parallel and redundant to Broadway. Both give access from Court St. to Whitesboro St. and the Baggs Square W. neighborhood near the Auditorium. The Project will close a portion of Cornelia St., limiting access from Court St. to Baggs Sq. W. to only via Broadway.

**Temporary blockages** due to deliveries, stalled trucks, fires, burst water mains, cultural and sporting events, etc., **are a common fact of City life. They are unpredictable** and not accounted for in the traffic studies. What is predictable is that the **Project's street closures will make it more difficult for people, and City authorities, to deal with them.** The EIS must acknowledge that the Project's street closures will turn what are now minor inconveniences into potential gridlock. **Disruption of the street grid is, *per se*, an unmitigatable adverse impact to transportation.**

3.) The Draft EIS fails to address the Cumulative Impacts of the Project with the NYSDOT's Route 5S work. After the State closes the Washington and Seneca Sts. crossings of Oriskany Blvd., and the Project closes Cornelia, how would one access Baggs Sq. W from Court St. if Broadway were to become temporarily blocked?

4.) The **Parking** demand appears overstated and the ITE methodology not explained, not readily available to the public, and likely misapplied given gross differences between the Project and hospitals elsewhere, cited during Scoping (Draft EIS pp1032-3/3527). How does the proposed parking compare with Applicant's current use (which should be conservative given scale-back in Applicant's operations)?

5.) **The EIS must recognize that the traffic impacts identified above would be avoided by Relocating the Project to the St. Luke's Campus** where (a) the negligible increase in bed-capacity on site would produce a negligible increases in traffic and parking demand (b) no public street would have to be closed and (c) there is nothing pending to suggest a Cumulative Impact to traffic.

**I. Impact on Energy**: The Draft EIS addresses this topic in Sections 3.8 and 4. The Draft EIS acknowledges that to service the Project, existing electric and natural gas infrastructure will be relocated out of the IHC footprint, into public rights-of-way (p.93/3527). It also acknowledges that to meet demand and minimize disturbances to existing customers, an 80 psi, 6-inch diameter gas main would be installed and extended approximately 2,500 lf to the site from National Grid's existing 80 psi supply main, and that extension of the gas main may require crossing underneath an existing railroad. (p.94/3527). The Draft EIS indicated that construction would be in accordance with applicable codes to minimize impacts.

1.) In spite of being raised twice during Scoping (pp. 1035 &1438/3527), the Draft EIS fails to disclose and **needs to acknowledge the impact of the Project on the Co-Generation Facility recently constructed on the St. Luke's Campus that is shared between St. Luke's facilities and Utica College.** The Hospital is the only customer for hot water and steam, and the largest customer for electricity. The facility's use numbers make it appear that this community resource, which contributes to the resiliency and efficiency of the energy system, would have to close if the hospital were to be moved to the Downtown site.

2.) Placing the Project Downtown deprives Applicant of the energy-efficiency of the Co-Gen facility and undercuts Applicant's sustainability.

3.)The Draft EIS fails to discuss Cumulative Impacts to Energy from anticipated "U-District" projects.

4.) Given the acknowledged impacts to off-site locations, public rights of way, potential "U-District" Cumulative Impacts, and the Co-Gen questions, the EIS needs to discuss whether such impacts could be avoided or lessened by relocating the Project to the St. Luke's Campus given the Co-Gen facility being on said campus and no "U-District" nearby.

**J. Impact on Utilities:** The Draft EIS addresses this topic in Section 3.9. It acknowledges that existing sanitary sewers, water lines, storm sewers would be removed and replaced with new pipes and arrangements, impacts would occur from this work, and that some of this work would be in public rights of way just off-site.

1.) The Draft EIS fails to acknowledge that the existing facilities are a grid that developed to serve a small-scale incremental type of development; that there is an increasing demand for this type of environment for redevelopment in Utica (e.g. recent Baggs. Sq. redevelopment); that such redevelopment is of the type intended to be fostered by the Gateway Historic Canal District rules and the Utica Master Plan; and that **destroying this grid would be the waste of a community resource needed to foster redevelopment**.

2.) The Draft EIS fails to address Cumulative Impacts from the "U-District" on utilities.

3.) The Draft EIS fails to acknowledge that the above impacts could be largely avoided by relocation of the Project to the St. Luke's Campus where the public grid would not be disturbed.

**K. Impact on Noise and Odor**: The Draft EIS addresses this topic in Section 3.10. Impacts are expected to be primarily related to the construction phase. The Draft EIS fails to acknowledge that relocating the Project to the St. Luke's Campus would minimize these impacts, particularly to off-site receptors, owing to the Campus' more-open surroundings, the decreased need to demolish buildings and reroute public infrastructure, and the likelihood that such impacts would be better monitored by an on-site Applicant.

**L. Impact on Human Health**: The Draft EIS addresses this topic in Section 3.11. The Draft EIS acknowledges that impacts to health could result during the demolition and construction phases through exposures to impacted soils and groundwater and hazardous materials, such as asbestos from old buildings. The Draft EIS touts the health purposes of the Project without reference to site, and attempts to address the "red zone" railroad problem.

1.) **The Draft EIS fails to consider that the purposes of the State's Grant – which is intended to improve human health – are undermined by the Project's placement on the Downtown Site**, as opposed to the St. Luke's Campus, because: (a) it **dis-**integrates the system of care by placing 2 miles between the new hospital beds and the rehab/nursing facility, (b) removes the anchor institution from the existent *defacto* medical district near the Utica/New Hartford line, (c) gives the Applicant an additional medical campus to manage; and, apparently, per the Applicant's own numbers, (d) undermines Applicant's financial stability by increasing the number of staff per hospital bed. (See Part I above)

2.) The Draft EIS makes clear that placement of the Project Downtown places it in a traffic area where delays will be exacerbated by the Project's own traffic and street closures. Additionally, because the streets to be closed are part of a grid, common blockages which now cause inconvenience could post-Project cause gridlock, making hospital access difficult and life threatening. (See Section H above).

3.) With regard to the "red zone" reference is made to my prior Scoping comments on this topic (Draft EIS p. 1036/3537). Although the Draft EIS attempts to address concerns raised during Scoping about the potential of having to evacuate the Project were a train derailment to occur involving hazardous substances on the CSX Railroad Tracks which pass about 900 feet north of the project site, **the Draft EIS still fails to assess the feasibility of evacuating what would become Greater Utica's only hospital and fails to substantiate any feasibility with an Evacuation Plan.** This should have been a "fatal flaw" of the Downtown Site.

**WARNING: The City of Utica, County of Oneida and other involved agencies are hereby placed on notice that if they approve of this Project on the Downtown Site, they are knowingly and unnecessarily placing human lives at risk both due to gridlock and the red zone because the St. Luke's Campus does not carry such risks.**

**M. Consistency with Community Character and Plans**: The Draft EIS addresses this topic in Section 3.12. Its approach is to ignore the word "Plans." Reference is made to my prior Scoping comments on this topic (Draft EIS p. 1036-7/3537) since they were disregarded.

1.)**The Project is inconsistent with the Gateway Historic Canal District's plan and building-form rules** (see e.g., Draft EIS p. 373/3527), which were Council-approved in 2005**.** The Draft EIS fails to disclose that the Downtown Site lies within the said District (an area bounded by Genesee, State and Columbia Streets and the CSX Tracks).

2.) **The Project is inconsistent with the Utica Master Plan**, approved by the Council in 2011 and updated in 2016. This and the Canal District plan envision mixed uses and "walkability" Downtown, not a Medical Campus of a few massive buildings surrounded by acres of parking.

3.) **The Project's street closures are inconsistent with Utica's Street Plan**, compiled incrementally over Utica's history by City ordinances.

**Per 6 NYCRR 617.7(c)(1)(iv), the material conflicts above are *per se* a substantive and significant adverse environmental impact that either must be mitigated or avoided. The DEIS fails to propose either. Relocation of the Project to the St. Luke's Campus would avoid these inconsistencies.**

**N. Impacts on Solid Waste Management**: The Draft EIS addresses this topic in Section 3.13. It acknowledges possible impacts during the construction phase from disposal of impacted soils and groundwater and hazardous building materials among the Construction and Demolition debris. With a decreased need to demolish buildings with unknown hazards and an historically less-impacted site, **relocation the Project to the St. Luke's Campus should be considered in mitigation of this environmental impact.**

**O. Environmental Justice**: The Draft EIS acknowledges the need to address Environmental Justice in Section 1.2.3 and in several other places, mentions several times that the Downtown Site is potentially an Environmental Justice area, but then **fails to offer anything about the issue.** The **Draft EIS fails to assess the Project's impacts on the protected population or otherwise deal with those impacts.** In this regard it is noted that the Project will displace from the neighborhood, if not destroy, about 40 business and other entities where people are working. No attempt has been made to assess the number or holders of those jobs, their circumstances, or whether they are members of the protected population. The Project will also displace or impact several charitable institutions that serve the protected population, such as the Salvation Army and Compassion Coalition. Jobs and services clearly are going to be lost to the neighborhood. **The EIS must acknowledge that Environmental Justice impacts may be completely avoided by relocation of the Project to the St. Luke's Campus, which is not in an E-J neighborhood.**

**P. Cumulative Impacts**: The Draft EIS addresses this in Section 5, out of context with the areas of environmental concern and with little information. It dismisses the "U-District" as "speculative," when it is not, considering that a building has already been demolished in preparation and its frequent coverage in the press. The referenced CSO project only tells us what it is but has yet to be placed into context with this Project because the EIS lacks information on the routing of Project waste water, as already pointed out. Cumulative Impacts need to be addressed under each relevant area of environmental concern.

Relocation of the Project to the St. Luke's Campus must also be considered in the EIS in mitigation of Cumulative Impacts as there are no known large-scale projects in its vicinity that could impact the Project.

**Q. Creation of a Demand for Other Actions that Could Impact the Environment:** This topic is only partially touched upon in the Draft EIS in Section 8.2 "Adaptive Reuse of FSLH and SEMC," and is otherwise ignored.

> 1.) The Project will take the new Utica Police Garage, disrupting the Utica Police Campus which also includes the Police Station, Utica City Court, and associated parking. No plan for the garage's functions has been announced, and the impact on the functioning of the other portions of the Campus is unassessed. The change in the map of the Utica Police Campus suggests that it will be 'squeezed out' by the surrounding Medical Campus, and create a need to build a new Police Campus (Garage, Station and City Court) elsewhere.

2.) The Project will take the facilities of some 40 business and other entities, and likely force others out of the neighborhood due to construction disruptions. If these entities continue their existence elsewhere they likely will go to the suburbs (Empire Bath has already moved to Marcy, and Brandeis will be moving to Whitesboro). Forcing businesses out of the City creates sprawl, increasing the demand for public infrastructure and services, making the public more dependent on the automobile, and wasting energy.

3.) The Draft EIS deals with the future of the St. Luke's and St. Elizabeth's Campuses by 'kicking the can down the road' – i.e. reuse of facilities to be abandoned is still being studied. Given the sizes of each campus any use change is likely to have a significant impact on their respective neighborhood, and would be impacts of the Project because the Project is causing the abandonment. The Draft EIS' vagueness is unacceptable in a community that has had to deal for over 20 years with the blight caused by the State's abandonment of hospital facilities on the Psychiatric Center Campus. One building has only recently been leveled after years of broken windows. The multistory, hulking Brigham Building still sits empty on the corner of Noyes and York Streets, dragging on the neighborhood. Simply put, there does not appear to be any market for abandoned hospital buildings, so "adaptive reuse" of these facilities sounds speculative. The EIS must propose mitigation measures that assure that Applicant's abandonment of facilities will not create new blight in South Utica and New Hartford. As mitigation, consideration should be given to requiring Applicant to post a performance bond to fund continued maintenance and/or demolition of abandoned facilities, if they are not repurposed within an appropriate specified time period.

4.) Relocation of the Project to the St. Luke's Campus should be considered in mitigation of potential demands for other actions because: (a) there would be no need to disrupt the Utica Police Campus, (b) there would be no need to displace businesses and others, and (c) some of the St. Luke's facilities could continue to be used to serve the Applicant (e.g., the Medical Office Building and the Co-Gen Facility).

**R. Smart Growth Policy** (Environmental Conservation Law Article 6): The Draft EIS makes some references to the State's Smart Growth Policy (pp. 48, 49, 1591/3527) regarding the Site Selection Process, but otherwise ignores the subject. The Draft EIS claims that the Downtown Site would be viewed more favorably if state funds are pursued and that re-purposing urban parcels is a sustainable initiative. The Draft EIS assigns extra "points" to the Downtown Site as being "smart growth." However, the Draft EIS' treatment of the topic is absurd -- like a box to be checked – without any apparent understanding that the purpose of the law is to minimize sprawl. The Project exacerbates sprawl by: (1) ripping out (wasting) an urban grid infrastructure and replacing it with a suburban-style campus with acres of parking (a low level use); (2) wasting Applicant's existing suburban campus, unnecessarily dispersing Applicant's facilities; and (3) pushing out 40 entities currently occupying the Downtown Site, and likely driving many of them to the suburbs or lesser developed areas. Simply, the Draft EIS turns the State's Smart Growth Policy on its head. **The EIS needs to acknowledge that relocating the Project to the St. Luke's Campus would be more consistent with Smart Growth principles because it avoids the three negatives listed above.**

**S. Unavoidable Adverse Environmental Impacts**: The Draft EIS addresses this topic in Section 6. It relates several short term impacts arising from construction, and several long-term impacts, specifically (1) demolition of existing buildings within the project footprint (including relocation of existing businesses), (2) new traffic patterns due to permanent closure of existing roads (3) periodic noise events from emergency helicopter access/egress and (4) modified viewshed. The language chosen hides the significance of the unavoidable impacts. For example, "change in traffic patterns" neither reflects the decline in traffic LOS at key intersections, nor the destruction of important redundancy in the Street Grid as discussed at H above. **The Draft EIS fails to acknowledge that the nature and significance of these impacts are tied to the site chosen, and that these short and long-term impacts could be minimized or entirely avoided by relocating the Project to the St. Luke's Campus.**

**T. Irreversible and Irretrievable Commitment of Resources:** The Draft EIS addresses this topic in Section 7. The wording used attempts to minimize the significance of what will be lost. **The EIS needs to acknowledge that a grid of public infrastructure (streets, sidewalks, sewers, utilities) that can support the kind of private, taxpaying, incremental redevelopment of Utica that is contemplated by the City's official plans will be irretrievably lost.** The new Police Garage will be taken. Numerous existing businesses with their associated jobs, income and the personal wealth of their owners will be lost. Utica will lose perhaps its best site (as part of the Central Business District) for business startups and growth, especially at a time that the immediately adjoining areas (Baggs Sq. and Varick St.) are becoming filled. The property and sales taxes generated here will be lost. While the Draft EIS in its next section paints a pie-in-the-sky picture of a future filled with economic development, **reality is that the hospital and its parking facilities will take over the very places where economic development would occur, and destroy the personal wealth of the very entrepreneurs positioned to make it happen**, the ones in business there now, as history of urban renewal projects in Utica has shown.

**The EIS should also make the same analysis for the St. Luke's Campus**. It would undoubtedly conclude that relocating the Project to that site would minimize irreversible and irretrievable commitment of resources.

**U. Growth Inducing Aspects:** The Draft EIS addresses this topic in Section 8 with a lot of forward looking rosy assumptions including tax figures based on smoke-and-mirrors. There is practically no substantive evidence, much less than a reasoned elaboration, to back up the claims.

As requested during Scoping (Draft EIS p. 1038/3527), **this section of the EIS should include consideration of "negative growth" with associated adverse impacts (the spread of blight and the wasting of community resources).**

Currently available information suggests that the Project, when completed, will **exacerbate the region's *negative* population trends through the *destruction* of jobs**. Hospital jobs will be reduced by at least 184 (Draft EIS pp589-90/3527, if the Applcant's numbers are believed), due to the reduction in authorized hospital beds from 571 to 373 (see the NYS Department of Health's Needs Analysis). Most non-hospital jobs (with no attempt to even count them in the Draft EIS) associated with the approximately 40 entities currently within the Downtown hospital site will disappear based upon the 90%+ closure rate experienced by Rome, NY businesses previously in the footprint of its Ft. Stanwix urban renewal project. The Project's **occupation of 25 Central Business District Acres**, primarily for parking, not only **will remove this acreage from private development** but **also drive up the cost of remaining CBD property by restricting supply**. That will discourage new startups and the creation of new jobs. Meanwhile the City of Utica will be burdened with providing municipal services to new facilities that do not generate taxes, raising taxes for everyone else and making Utica less attractive for investment.

**Simply put, the Project will replace an urban neighborhood that contributes to its upkeep with suburban sprawl that will not. The EIS needs to not only address these concerns but also acknowledge that they could be minimized by placing the new facility on the St. Luke's Campus.**

**V. Conclusion re Environmental Concerns**

**Significant environmental concerns are either ignored, understated, or masked by a focus on minutae.**

(continued)

**Part III  Matrix St. Luke's Campus vs Downtown (using regulatory environmental criteria)**
*(Limited to these two sites because Applicant cannot be made to consider a site it does not own/have under option – see 6 NYCRR 617.9(b)(5)(v) ('g'))*

| Criteria | St. Luke's Campus | | Downtown Utica | |
|---|---|---|---|---|
| 6 NYCRR 617.7 (c)(1) … *"These criteria are considered indicators of significant adverse impacts on the environment"...* because the proposal . . .<br><br>*[Criteria under 6 NYCRR 617.7 (c)(1) that do not appear to be applicable to either site are not listed]* | | | | |
| 6 NYCRR 617.7 (c)(1)(i) ... causes *"a substantial adverse change in existing air quality, ground or surface water quality or quantity, traffic or noise levels; a substantial increase in solid waste production; a substantial increase in potential for erosion, flooding, leaching or drainage problems."* | Level of site use would only marginally increase (increase of only 27 hospital beds on-site) therefore no substantial changes. | 0 | → Surface water pollution (see Part II B above) (1)<br>→ Unacceptable traffic levels (see Part II.H.1 above) - (1)<br>→ Destruction of street grid (see Part II.H.2 above) - (1)<br>→ Possible flooding (see Part II D above) (1) | 4 |
| 6 NYCRR 617.7(c)(1)(iv) ... creates a *"material conflict with the community's current plans or goals as officially approved or adopted,"* | No Conflict. | 0 | → Conflicts with Gateway Historic Canal District rules, Utica Master Plan, and street ordinances. (see Part II M above) (1) | 1 |
| 6 NYCRR 617.7(c)(1)(v) ... impairs the *"character or quality of important historical, archeological, architectural, or aesthetic resources or of existing community or neighborhood character"* | No Impairment. | 0 | → Impacts to historical, archeological, architectural resources are extensively documented in Draft EIS (see Part II G above) (1)<br>→ Destroys viewshed from important gateway to Downtown (see Part II F above) (1) | 2 |

| **Criteria Matrix** (cont'd) p2 | **St. Luke's Campus** | | **Downtown Utica** | |
|---|---|---|---|---|
| 6 NYCRR 617.7(c)(1) (vi) ...would cause "*a major change in the use of either the quantity or type of energy*" | Keeps Microgrid<br><br>Increase of 27 beds not expected to cause major changes. | 0 | → Loss of Co-Gen facility (Microgrid) at St. Luke's (see Part II I (1) above) (1)<br><br>→ Major change in neighborhood gas use requiring new gas line (see Part II I above)(1) | 2 |
| 6 NYCRR 617.7 (c)(1) (vii) . . . would create "a hazard to human health" | Demolition minimized therefore impacts minimized<br><br>Not congested area, no gridlock<br><br>No "Red Zone" | 0 | → Exposes the public to hazardous building materials and impacted soils and groundwater during demolition/construction (see Part II C, E above) (1)<br><br>→ Places Project in traffic area that will become subject to delays and gridlock (see Part II L(2) above) (1)<br><br>→ Permanent "Red Zone" risk (as described Part II L.(3) above) (1) | 3 |
| 6 NYCRR 617.7(c)(1)(viii) ... would cause *"a substantial change in the use, or intensity of use, of land . . . or in its capacity to support existing uses"* | No substantial change in land use, intensity, or capacity. | 0 | Site would go from mixed commercial (retail and services), charitable and residential uses to healthcare + parking; existing uses will be removed. (1) | 1 |

| | | | | |
|---|---|---|---|---|
| **Criteria Matrix** (cont'd) p3 | **St. Luke's Campus** | | **Downtown Utica** | |
| 6 NYCRR 617.7(c)(1)(ix) ... would encourage or attract "a large number of people to a place or places for more than a few days, compared to the number of people who would come to such place absent the action" | No material change in level of use. | 0 | Project would bring hundreds of hospital beds with supporting staff 24 hrs/day 7 days/wk. (1) | 1 |
| 6 NYCRR 617.7(c)(1)(x) … would create *"a material demand for other actions that would result in one of the . . . consequences"* listed in 6 NYCRR 617.7. | → Abandonment of SEMC facilities (1) | 1 | → Abandonment of SEMC facilities (1)<br>→ Abandonment of St. Luke's facilities (1)<br>→ Dis-rupition/location of Utica Police Campus (1)<br>→ Displacement of existing occupants of Downtown site (1)<br>(see part II Q above) | 4 |
| Environmental Conservation Law (ENV) Article 6 (Smart Growth) | Consistent | | Inconsistent with purpose of ENV Art 6 (see Part II R above)(1) | 1 |
| **Total Number of Adverse Environmental Impacts** | | **1** | | **19** |

**Summary Conclusion on Matrix:**

**Numerous adverse environmental impacts as identified by State regulation or law will be avoided or minimized by simply relocating the Project to the St. Luke's Campus.**

(continued)

**Part IV. The SEQRA Process & Conclusion:**

The SEQRA process is set forth in ENV Article 8 and its implementing regulatons, 6 NYCRR Part 617 (State Environmental Quality Review, SEQR). As described in the SEQR Handbook (p.3) :

> *"SEQR establishes a process to systematically consider environmental factors early in the planning stages of actions that are directly undertaken, funded or approved by local, regional and state agencies. By incorporating environmental review early in the planning stages, projects can be modified as needed to avoid adverse impacts on the environment."*

The availability of State funds for the Project was announced in early 2015, the site for the Project was announced in September, 2015, and we just got around to SEQR in 2018 when the Oneida County Industrial Development Agency made a Positive Declaration. Does that sound like "incorporating environmental review early in the planning stages" so that "projects can be modified as needed to avoid adverse impacts on the environment?" Why was SEQR not part of the planning of the Project from the very beginning, including the choice of the site? As noted under Part I Section I, the site of a project is an appropriate consideration under SEQR, and the State promulgated a non-exhaustive list of those actions considered to have significant adverse impacts (6 NYCRR 617.7(c)(1)). This could have been used to help screen or rank the sites – but it was not.

People may disagree with how the regulations were applied or sites ranked in Part III above, however, the process only took a few hours. This Project deserved at least that level of attention being paid to the environmental consequences of site selection. Most people would probably intuitively conclude that trying to shoehorn a hospital with acres of parking into the middle of a Central Business District that was built for another era, another style of development, and a different purpose would be more disruptive to the environment than locating the hospital on a site that had enough room and had been specifically designed for that use. It is no surprise that the choice of site is still a controversial topic after three years.

For a major project such as this, ENV 8-0109 requires preparation of an EIS. The regulations make clear that a government agency cannot undertake, fund or approve of an action until it has complied with the provisions of SEQR (see 6 NYCRR 617.3 (a)). But that is, in deed, what happened at least as far back as Summer 2016 when Oneida County put county employees, and Utica put city employees (the Planning Board's Staff), to the task of engaging in regular meetings with MVHS to help plan for the Project at the Downtown Site, because government employee time is money.

If the applicability of SEQR and need for an EIS was not apparent to the local authorities at that point in time, then it should have been apparent when the County approved funding for MVEDGE to provide property appraisal services for MVHS aiding the pursuit of the Downtown Site. The County should have stopped further action and opened the SEQR process then, but it did not. Nothing was done about SEQR until there was an "application" that triggered a review – but, as noted above, the law wants the environment taken into consideration "early in the planning stages" so that "projects can be modified as needed to avoid adverse impacts on the environment." Here, the County and City had employees planning this project without the environmental information required by law. It is a shame that so much time and money was spent on a flawed process.

Like the Site Selection Process appears to have been tainted by undue influence, the entire EIS appears tainted as well. People who have personally invested their time toward securing the Project for Downtown will have difficulty focusing on another site – an impossibility for those where the alternate site is in another jurisdiction.

At this point in time the Planning Board is faced with (1) an EIS that cannot support a SEQR finding because St. Luke's appears to be the environmentally superior site and (2) having to give up jurisdiction because it has no legal authority in New Hartford.

The EIS must be rejected as inadequate, and the process reopened for a new Lead Agency to produce a revised Draft EIS that addresses all the open issues identified herein.

Elefante

Rec'd 1:24 12/27/2018 [illegible]

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December 26, 2018

**Via Fedex Overnight Delivery**
City of Utica Planning Board
c/o Department of Urban & Economic Development
Attn: Mr. Brian Thomas, Commissioner
1 Kennedy Plaza
Utica, New York 13502

**Re: Mohawk Valley Health System – Integrated Health Campus**
**Draft Environmental Impact Statement**

Dear Members of the City of Utica Planning Board:

This office represents Angela Elefante in connection with the above-referenced proposed MVHS Downtown Hospital (the "Project"). This letter is sent pursuant to the Planning Board's invitation for written comments regarding the draft Environmental Impact Statement (the "Draft EIS") dated November 15, 2018 relative to the Project.

The Project involves the demolition and redevelopment of approximately 25 acres of Utica's Central Business District, and it contradicts the principles and goals for downtown economic development set forth by this Board in its Neighborhood-Based Master Plan (the "Plan"). The Plan states that "Utica's downtown needs to become an interesting, safe and easy place to move around" for both vehicles and pedestrians. *See* Master Plan at pg. 36. To this end, the Plan identifies various retail opportunities, restaurant opportunities, and housing opportunities. *See* Master Plan at pgs. 36-40. The Board clearly envisions downtown Utica as a mixed-use area where retail, entertainment, and housing converge. The Board also identifies the importance of promoting culture and the arts downtown. *See* Master Plan at pg. 41. Downtown as idealized by the Board is a mixed-use gathering place for shopping and entertainment, as well as a living space. It is a place where Uticans choose to spend time and interact with each other.

A downtown hospital is antithetical to the stated economic development goals of this Board. The Draft EIS hypothesizes that the proposed downtown location "will help to build a vibrant community through spatial efficiency, creative placemaking, historic preservation, and pedestrian-focused infrastructure." *See* Draft EIS at pg. 130. It also opines that the downtown location "will strengthen demand for residential living and new commercial developments." *See* Draft EIS at pg. 130.

Hospitals are not like typical downtown attractions such as music venues or athletic arenas. Music venues attract city residents and visitors, and invite them to spend time downtown for their event, but also for a meal or shopping before or after their event. An arena invites visitors to spend an afternoon or a day sampling local attractions, in addition to attending a particular event. A hospital is vastly different. People do not choose to spend time in hospitals in the same sense they choose to spend time in traditional downtown locales. People go to hospitals for employment or treatment. Hospitals are closed-universe facilities, similar to casinos. And similar to casinos, once at a hospital, one does not typically leave the premises. Food is available on premises. Security guards ensure patient safety. Shopping is the last thing on the mind of a surgical patient or a visiting loved one. Patients are not free to explore the local neighborhood. Hospital employees want to head home and see their families after a shift, not linger around downtown. As a result, business owners are unlikely to open new businesses adjacent to the proposed hospital location.

Hospitals may cause people to enter a building, but that alone does not guarantee the economic development of the surrounding neighborhood. Because hospitals are closed universes, they do not breathe new life into downtowns. Instead they are walled off from the neighborhood, occupying what could be vibrant mixed-use space. Instead of demolishing 25 acres of downtown to build a medical fortress, this Board should advocate for programs to reinvigorate existing downtown businesses, attract new mixed-use development, and stay true to the principles expressed in the Plan. The area surrounding Johns Hopkins Hospital in Baltimore is a cautionary tale against relying on medical centers for economic revitalization.

Critically, the Draft EIS proposes to take 25 acres of downtown land off of the tax rolls, without adequate replacement. *See* Draft EIS at 114. Projections for increased adjacent property tax values and other secondary tax dollars are based in part on the incorrect theory that the downtown hospital location will generate a vibrant mixed-use downtown, which it will not. Instead, hospitals are likely to depress the market property values of the immediate surrounding area. In fact, developers who favor the Project may simply hope to buy those still-depressed surrounding properties at further-depressed rates in a few years, for their own profit. Instead of writing off thousands of dollars of property taxes in perpetuity, the Board should seriously consider another location for the Project and advocate for programs to energize the existing businesses and infrastructure downtown, keeping those properties on the tax rolls. In addition, the proposed hospital will require major infrastructure construction (such as the central utility plant) and it will place demands on services such as water and sewer service that will be borne by other taxpayers. The hospital will consume large quantities of resources without paying taxes, thereby putting a strain on the city's finances. The Draft EIS does not adequately address the additional demands on services created by the hospital.

For guidance, we urge the Board to look no further than the downtowns of other Upstate cities. Hospitals are not located in the successful downtown economic districts of cities such as Syracuse, Rochester, and Saratoga Springs. The downtown economic districts of these cities remain mixed-use areas for work, entertainment, restaurants, and living space. Hospitals in these cities tend to be located on the outskirts of the city, or in neighborhoods near universities or medical schools.

To this end, we believe that an alternate location is preferable. In the analysis relied upon by the Draft EIS, the St. Luke's Hospital campus scored the same or better than the downtown location in terms of size, utilities, zoning approvals and impact fees, and environmental considerations. *See* Draft EIS at pgs. 28-32. Moreover, if one of the goals of the Project is truly to consolidate Utica's medical facilities, the St. Luke's location is the only location that physically places the new facility in proximity to Utica's existing healthcare infrastructure. Among other things, any patient travel between St. Luke's and the new facility will be logistically easy, as will any sort of resource-sharing that may be necessary between the two facilities. In addition, it is our understanding that the St. Luke's campus already has sufficient electrical capabilities to service the proposed new hospital. Locating the new hospital at St. Luke's would therefore eliminate the need to construct the central utility plant that has been proposed as part of the downtown location.

Finally, the Draft EIS does not adequately address certain potentially serious environmental concerns regarding the downtown site. The proposed location is within approximately a half mile of railroad tracks over which trains carrying petroleum products and toxic chemicals travel. It is our understanding that the hospital is located within an evacuation zone, known as a 'Red Zone'. Sometimes, trains derail. This past June, a train carrying oil derailed in northwestern Iowa, resulting in the discharge of 230,000 gallons of crude oil into surrounding floodwaters.[1] A derailment of a train carrying oil or chemicals within walking distance of a hospital is an invitation to an unmitigated public health catastrophe. Notably, the Draft EIS does not include an evacuation plan for the hospital, and instead of discussing how MVHS would respond to such an emergency, the section discussing the railroad minimizes the severity of the risk and focuses on the low

[1] Associated Press, *230,000 Gallons of Crude Released into Floodwaters After Train Derailment, Railroad Says* Des Moines Register, June 23, 2018, https://www.desmoinesregister.com/story/news/2018/06/23/iowa-train-derailment-bnsf-crude-oil-railroad-says-230-000-gallons-leaked/728423002/ (last visited December 18, 2018).

"likelihood that the catastrophic impact would occur." *See* Draft EIS Pg. 91. Instead of detailing the tangible steps that would be taken in the event of a spill, the Draft EIS merely provides a list of the agencies and organizations that would be pressed into duty to respond. *See* Draft EIS at pgs. 100-102. It is irresponsible to place some of Utica's most vulnerable residents within feet of a potential oil or chemical spill. It is irresponsible to do so while dismissing the likelihood of a catastrophe and while expending little effort on a plan to respond to such an emergency. While the odds of a derailment may be small, the consequences would be severe. This issue was raised throughout the scoping process, and it is minimized by the Draft EIS. Notably, the St. Luke's campus location is not within the Red Zone. Next, the Draft EIS does not adequately address the environmental concerns that exist underground at the proposed downtown site. The Sanborn Maps, which the Draft EIS acknowledges (*see* Draft EIS at pgs. 92-94), denote the presence of several gas tanks. It is our understanding that these maps also detail underground concerns such as gas lines and water lines, some of which are very old and damaged. The Draft EIS does not clarify whether and how underground gas and water lines will be restored or replaced.

For these reasons and for all the reasons that others opposing the Scoping Document and the Draft EIS have put forward, we urge that the Board reject the Draft EIS as written and urge that the Draft EIS be revised to include a full analysis of the St. Luke's campus location, with an eye toward relocating the proposed new hospital to the St. Luke's campus.

Very truly yours,

BOUSQUET HOLSTEIN PLLC

Gregory D. Eriksen

GDE/mtg

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Galime

Michael P. Galime, Council President -Utica
2617 Crestway Utica, NY 13501
Tel 3155254224
mgalime@cityofutica.com

DECEMBER 27, 2018

**Brian Thomas**

**Fred Matrulli**

**CC: Utica Planning Board – Lead Agency, MVHS Scoping**

1 Kennedy Plaza Utica, NY 13502

Brian, Fred, Planning Board,

Please see the attached. Included are a list of issues which have not been addressed in the DEIS, or the original scoping document response, and if not remediated this project will move forward without a known probability of positive outcome for both MVHS or the surrounding community. Please let this serve as a cover letter for the DEIS input.

As stated in a previous scoping response, the planning board should ensure that this project is treated as a private development project, that has received a government grant for partial funding, and that the project be reviewed in its entirety.

Thank you, and please see the comments attached in this document.

Regards,

**Michael Galime**

COUNCIL PRESIDENT, CITY OF UTICA

## December 2018 DEIS Comment Input:

The following have not been addressed in the project filings, nor have been addressed in the impact study. The following issues will be either involved with or caused by the approval of the MVHS proposal.

- City of Utica
    - The City of Utica has no formal plan to relocate the police maintenance facility. The cost for this relocation is not specified in the project filings.
    - This proposal, if acted upon, will displace the main police headquarters, which there is no financial plan to relocate.
    - The City of Utica has no formal financial plan to reconstruct the City street grid for ingress and egress to the proposed campus.
    - The City of Utica has no formal financial plan to increase public safety requirements, nor are the new requirements listed within the scoping studies.
    - These issues must be addressed and remediated if this project is approved for development in the selected location.
- MVWA
    - The current water delivery to the Central Business District is adequate for the current structures within the proposed footprint.
    - The current water delivery **is not adequate** for the proposed structure.
    - There is no financial plan to route appropriately sized mains to the proposed site, nor is there a physical construction plan to route the appropriately sized mains to the site from the current inlets from the MVWA Hinckley Reservoir feeder pipes.
    - These issues must be addressed and remediated if this project is approved for development in the selected location.
- National Grid/Power Authority
    - The current power and electrical subway feeding the Central Business District is adequate for the existing structures yet is aging and **not currently** prepped for expansion.
    - The current power and electrical delivery **is not adequate** for the proposed hospital structure. This is listed in the scoping filings, however, there is no financial or physical construction plan to remediate.
    - The current natural gas delivery is not adequate for the proposed structure. There is no financial or physical construction plan to remediate.
    - These issues must be addressed and remediated if this project is approved for development in the selected location.
- Site Preparation
    - The project filings require a parking garage, as well as previously listed additions to assemble the site. The proposed garage is seemingly separated from this SEQRA process, and it appears is not being studied, as required.
        - **<u>Under SEQRA 617.2 this may be Segmentation</u>**
        - If this is deemed Segmentation, but the State CON from the department of health requires the Parking Garage, this review must include all involved

actions. Either the Parking Garage proposal must perform SEQRA, or it must be included in this review.

- **Overall Site Assemblage**
    - The site is not complete.
    - As part of the site assemblage private land owners have been told they must sell to MVHS. This impact study does not address the needs to assemble the site fully or remediate the environmental impacts imposed on the current land owners and businesses.
    - Currently involved agencies (NYS ESD) are directing funding to specific entities (RCIL) for relocation, and other entities for reconstruction (Empire Bath Building owners), while other private land and business owners are being left to fend for themselves, based on potential option payout agreements. There is a complete lack of site assemblage support. The involvement of other agencies, such as the Community Foundation, to hire coordinators, is not sufficient, and creates **another unlisted involved agency under SEQRA, and more obfuscation for property owners attempting to find resolve within the proposal.**
    - As stated multiple times, the site assemblage is not complete, and MVHS has not demonstrated that it is committed to aiding in relocation and/or business continuance plans for the affected properties.
    - The current site assemblage plan resembles the efforts used when transitioning government inactive land into private sector, while this project is transitioning private active business property into a single entity campus for a not-for-profit private large business.
    - **The funding currently routed to RCIL and the owners of the previous Empire Bath building is both segmentation and preferential treatment through use of secondary taxpayer funded initiatives, in order to clear issues for the current open SEQRA study.**
    - None of this is addressed.

- The referenced “Site Study”
    - The site study did not include any financial implications for Utica, NY as a municipality, or the municipal energy and water delivery entities.
    - The site study did not include the current businesses and property owners in the Utica locations.
    - The site study treated all locations and pre-prepared assembled sites. Although there is a claimed need to build the hospital in the proposed location to garner the 300-million-dollar grant, this cannot be used as an to ignore that the site study did not include a clear state of the City of Utica.
    - The only guarantee that the site parcels may be assembled is via Eminent Domain. Under SEQRA Eminent Domain is not guaranteed to remediate the impact to the affected businesses and property owners or the City of Utica. Eminent Domain will only remediate the issue of assembling the site for MVHS, who is not part of the current environment of the proposed site, and only a benefactor of the process.
    - The site study point system may have arrived at an inadequate conclusion due to the exclusion of key environment factors, which could render the proposed budget for the

compilation of this project inadequate. This must be studied, and MVHS must respond with adequate remediation for the above-mentioned issues, and any new issues that may be found.
    - This should not rule out the current site, but the planning board (lead agency) must insure the real cost and impact of the current site use is stated, and insure that MVHS can complete, prior to approval.
- This proposal references other projects and proposals that are either incomplete and/or have not proceeded with SEQRA.
    - U-District is a point example of a reference in need of review.
    - The MVHS proposal review should not be based on other incomplete government proposals which present similar issues in site assemblage and private property acquisition.
    - It appears that this proposal is part of a larger initiative largely represented by the MV500 application that was filed in 2015 as part of a NYS State funding competition.
    - If this project is approved, it is imperative that the planning board, acting as lead agency, prove that this proposal can be completed within the scope of the current filings.
- The ability for private businesses who both lease and own property to move ahead successfully, if this proposal is approved, has not been addressed.
    - The proposal has proceeded as a land transition plan for vacant unused property. This land was not vacant and unused at the time of original public promotion of this proposal, nor at the time of filing, this February, 2018.
    - Private business requires capital funds to relocate and continue operating if relocation is necessary.
    - Prior to the approval of this proposed action, private land owners are being advised by involved agencies to incur costs ahead of MVHS agreements to purchase. This is both irresponsible, and in conflict with the current SEQRA review.
    - SEQRA has no effective ability to address the pressure on private businesses to leave their current sites and/or negotiate with MVHS. The planning board should be requiring this.
    - This current proposal does not address how businesses can move forward without incurring debt and/or capital expenses solely related to this project, or how to build out new facilities while operating in the current state. The advisement to move ahead pre-maturely – prior to completing negotiations with MVHS - is allowing MVHS to escape the responsibility that SEQRA should deem required in remediating the strategic and financial this proposal has presented.
    - These issues must be addressed and remediated if this project is approved for development in the selected location.

## PREVIOUS COMMENTS – 2018 SCOPING DOCUMENT – FOR REISSUE WITH DECEMBER DEIS REPSONSE

# Potential Adverse Impacts, MVHS Hospital Proposal – input for EIS.

## New Hartford & South/West Utica Vicinity

### Power Plant Cogeneration Facility

What will be the impact of MVHS leaving the cogeneration power plant facility behind? Will the operator continue to run the plant, and how will this effect the power delivery and rates for Utica College?

How will this effect the overall grid for the area?

### Medical Office and Outpatient Facility Locations

Many outpatient facilities and medical offices have located and/or been built within the St. Luke's facility vicinity. This includes the Omni Surgical Center, as well as many offices within the business park. Will these locations need to relocate, and if so, will this cause unplanned financial burden on the overall medical community?

### Cost of Facility Reuse

The St. Luke's Campus is said to be marketable to private development, however, within the Oneida County Local Development Corporation (OCLDC) application, as of February 2018, the entire campus is not being decommissioned. Who will maintain the property to insure it is not depreciating and left to become decrepit post abandonment, or when partially abandoned.

## South Utica Genesee St Vicinity

### Facility Reuse

Is there a known plan to market and maintain the property at St. Elizabeth's? Allowing this facility to wain while vacant may impact the overall status of upper Genesee St. Who will maintain the property to insure it is not depreciating and left to become decrepit post abandonment, or when partially abandoned?

### Medical Office and Outpatient Facility Locations

Many outpatient facilities and medical offices have located within the St. Elizabeth's area. How much of the surrounding area would be left vacant if there is a general push to move all ancillary medical business downtown?

## Downtown Utica Vicinity

### Unrealized Potential Cost

The current budget for the hospital proposal does not include water, sewer, gas delivery, or overall infrastructure cost. Who will be expected to pay for these additions to the project if there are overruns or unanticipated issues crop up.

### Facility Placement Impact

A blanket statement has been made that there is a need to place medical care within reach of people in socio-economically stressed scenarios. The current proposal and scoping document proposes the construction of an acute care facility with surgical and emergency services. Placing a facility of this type in the urban core of the greater Utica area may create a situation that the care that is most needed by the population discussed as “in need,” in the MVHS proposal and state legislation, will not be able to receive the clinical and chronic care at the proposed facility.

It is very possible and should be studied that spending 1billion dollars rearranging the region around a single facility of this design is not addressing the actual needs of this community.

This consideration should be studied regardless of the chosen location.

## Traffic and Congestion

The City of Utica is becoming more congested as the municipal center grows. There is more potential for access issues in an urban center. In 2017 Route 12 was closed due to accidents and weather events multiple times, causing Genesee St and Route 5 to become gridlocked. The potential impact of locating our proposed single emergency care facility in this situation must be considered.

## Heliport

The heliport specified in the filings is not a helipad. Can a helicopter land within this proximity to buildings, on a ground level, safely? How will people be transported into the facility, considering its placement adjacent to the proposed facility.

## Impact of Increased Power Grid Use

The new facility is no longer going to produce its own power. There may be an impact to overall rates and delivery. Has this been studied? This should be included into the overall potential environmental impact.

## Financial Impact to City of Utica

The financial impact to the City of Utica is not understood at this point. There are unknown and unspecified costs regarding infrastructure, facility relocations, parking garage costs, and the introduction of a large tax abatement. A long term (5 year, 10 year, and 15 year) outlook should be analyzed and considered. Above and beyond property tax, there will be a loss in sales tax, and increase in services, that should be studied and considered adverse, due to the impact to the City.

All accountable costs, revenue loss, revenue gains, and expenses must be considered.

## Financial Impact to City of Utica School District

If the downtown location is chosen, the Utica School District will be losing tax revenue funding.

## Financial Impact to County

If the downtown location is chosen, the Oneida County will be losing tax revenue funding.

## Financial Impact to City of Utica Library

If the downtown location is chosen, the Utica Library will be losing tax revenue funding.

## Impact of loss of Central Business District

The direct cost to the City of Utica in aiding MVHS to build a downtown facility may be greater than the cost to reinvigorate the current tax paying business district through use of the same street scape and façade improvements proven to work on Genesee St and repairing a reutilizing our current parking structures for Hotel and Auditorium needs.

The indirect cost of spending money to reduce the ability to generate tax revenue will spread the direct costs of the MVHS aid from the City and County across the remaining tax paying entities left in the City of Utica, while resulting in a permanent tax abated installation.

### Future Expansion: Landlocking

The current proposal calls for a reduced size single location consolidation of our medical delivery system. This is being placed in the center of the City of Utica, landlocking the facility for all future development, while surrounded by privately owned property. This will limit future expansion and should be considered an adverse effect.

## Affected Property Owners and Businesses

At this time there have been adverse negative effects imposed on the central business district. MVEdge has stated multiple times that the district could have kept moving forward during the #MVHSDowntown campaign, however, in the case of the new Enterprise Car location, the city, property owners, and Enterprise were all sent correspondence from MVEdge to not develop their property because it will be taken.

This correspondence was prior to the filing of the project with the OCLDC.

Moving forward how will the affected businesses be dealt with. There has not been, to date, clear discussion based on this. The central business district is home to many tax paying businesses as well as not-for-profit community support businesses. The current filings from the OCLDC are stating that PILOT agreements and possible relocation costs will be dependent on job creation.

The potential negative impact is that these businesses themselves are placed in a position of stagnancy and financial impact that they would have otherwise not had to deal with if this proposal was not floated for multiple years prior to its filing.

## Infrastructure Cost

The following are not currently specified within the 480milllion dollars of proposed cost.

- Storm Water Mitigation
- Water Delivery
- Natural Gas Delivery
- Power Delivery

There is a potential negative impact where these costs will fall outside the specified scope, and MVHS will look to the City, County, and State for additional funding.

## Regional Land Use and Availability

### Empty hospital site issue

The greater Utica area will be left with three empty hospital sites. The state psychiatric facility, St. Elizabeth's, and St. Lukes. Is this scoped proposal the best use of the downtown developable commercial active property, while leaving behind facilities that are currently in use empty, and have no scoped reuse and/or rehabilitation plan.

In exchange for a few empty buildings that have commercial potential downtown we are creating multiple large empty facilities with no current commercial prospects, throughout the region.

### Land Availability

Downtown Utica property is becoming a premium. Reducing the available land will increase cost and sellable value, creating a situation where current business and property owners may either not be able to expand in place, or be priced out of their current options. This should be considered part of the scoping of adverse effects.

## MVHS Ability to Complete

### Financial Plan

At this point the scoping document and proposed project filed with the Oneida County Local Development Corporation does not demonstrate the financial ability to complete the proposed project. There is a potential situation where MVHS may not be able to fund the project fully and may turn to tax payer funding to bail out overruns.

### Cost Overrun Planning

The current statement from MVHS CEO Scott Perra, when asked how the project will be dealt with if over budget, was that the project will not go over budget. This is not an adequate answer for a project of any scale.

## Overall Facility Impact

The proposed purpose of the facility filed with the OCLDC and scoped within the SEQRA filings is to improve the overall delivery of health care needs in the greater Utica area.

This proposal is consolidating current facilities into one, keeping operational care the same in most areas, and reducing it in others (pediatrics), for example.

Regardless of the chosen location, there is potential negative impact that the proposed facility will not achieve proposed and pitched improvements and not increase our healthcare delivery overall, while at the same time reducing the size of the overall capabilities within the area.

LSGU

# Landmarks Society Of Greater Utica

1124 State Street / Utica, NY 13502 / 315.732.7376 / www.uticalandmarks.org


December 27, 2018

***VIA HAND DELIVERY AND E-MAIL***

Mr. Fred Matrulli, Chairman- City of Utica Planning Board
c/o Department of Urban & Economic Development
1 Kennedy Plaza
Utica, New York 13502

**RE: MVHS proposed IHC- Request for SEQRA DEIS public comment period extension**

Dear Mr. Matrulli:

The Landmarks Society of Greater Utica (LSGU) supports an extension of the MVHS proposed IHC SEQRA DEIS public comment period by 60 days. We believe this is necessary given the complexity of the many interrelated issues being reviewed, the incomplete and inaccurate information currently included in the November 15 DEIS, and the need to distinguish between speculative conjecture on MVHS's part and fact. There are significant contradictions present in the submitted project which intends to demolish all buildings in the proposed campus footprint including 2 National Register of Historic Places (NRHP) listed properties-301 & 401 Columbia St.- and 9 NRHP eligible properties. The current US Secretary of the Interior guidelines discourage demolition only as a last resort after all other options have been exhausted. Since the St. Luke's campus is a viable 2nd site, as determined by MVHS, another option to explore exists. Three properties are also in the expanded NRHP listed Downtown Genesee Street Historic District which represents an obstacle to removal as demolition in the district is also restricted. NYSHPO requires investigation and documentation of the above mentioned historically & culturally significant properties, which in many cases has not yet commenced, and is required as part of the SEQRA process. Such demolitions also violate the goals of the adopted Utica Master Plan, the Gateway Historic Canal District design guidelines, NYS Historic Preservation Plan, and compromise the community character and authenticity of this legacy Erie Canal era neighborhood.

DASNY requires additional clarification from MVHS as to what functions are remaining at the various campuses and how this would promote a consolidation/integration of the health care system. The NRHP eligible St. Elizabeth campus, which MVHS is proposing to repurpose, is located in Utica's Scenic & Historic Preservation District and subject to review/approval of any exterior alterations or proposed demolition.

Given the amount of information, 3500+ pages, with which a reviewer would need to become familiar, the truncated time frame of the minimal designated comment period during Thanksgiving and Christmas, and incomplete cart-before-the-horse MVHS submissions, we do not believe that sufficient time has been allotted for stakeholders to fully process the information. An opportunity for meaningful public input has not been provided for this very important project which will have an irreversible, long term, and far reaching impact on Utica and the Mohawk Valley. Please do not hesitate to contact me at LSGU should you require additional information.

Thank you for your careful consideration and deliberation regarding this matter.

Sincerely,

Steven Grant

Steven Grant, President and the Board of Trustees of the Landmarks Society of Greater Utica

Cc: Thomas S. West- The West Firm

Caruso

**To: Brian Thomas, Commissioner, City of Utica Department of Urban & Economic Development**

**From: Joseph P. Caruso, member, City of Utica Planning Board**

**Re: Downtown Utica DEIS**

**Date: December 27, 2018**

I hereby submit my observations and questions in response to the MVHS Downtown Hospital Draft Environmental Impact Study (DEIS).

1) **Creating a more Walkable Utica/Downtown:** While I appreciate the planning process for the hospital *building* itself ("*from the inside-out*", the building taking shape according to the needs of the individual departments within), The *campus* plan for the hospital as presented lacks street level tenants/amenities sufficient to create a more walkable Utica/Downtown. Specifically, the **Columbia/Lafayette east/west corridor** of the proposed hospital campus, linking Genesee Street and West Utica – and more specifically, the two blocks between Broadway and State Street - are not sufficiently "walkable" as there is little or no walker experience/interaction along the way. Presently, the campus corridor is proposed to be occupied by the hospital building and parking lots and parking garage. Even the ca. 1960s Kennedy Parking garage was constructed with a Columbia Street retail wing fronting the north side Columbia Street level of the garage, but this space is slated for demolition and to be replaced by a parking lot.
   **Possible solution:** Locating some services (pharmacy, coffee shop, café, bank/credit union office, etc.) on the street level of the hospital building might ameliorate the situation described here. If this is not possible in the hospital building itself (due to the aforementioned "inside-out" building planning process), then perhaps these same proposed services can be located a) on the opposing sides of the street from the hospital, or b) on the street level of the parking garage, effectively breaking up the mass of parking.
   **Summary:** I believe that the hospital campus can become a vital link in the connectivity of Utica neighborhoods if this issue is addressed.

2) **Helipad:** I am concerned that the emergency air transport plan is for construction of a street-level helipad rather than a rooftop heliport. While I am aware for the stated reasons for this (cost among them), I'm concerned for the interaction with pedestrian traffic, and the noise/distractions caused by aircraft landing and taking off, and would prefer to see a rooftop (heliport) solution. If the hospital building roof is not a practicable solution, then what about a) locating a heliport on the parking garage or b) locating a helipad slightly off-site, in a more pedestrian-remote space, as I have read has been done in other cities?

3) **Cost to taxpayers:** I would like to know what percentage of **actual city property tax revenue** is represented by the property in the proposed hospital footprint, and how the City of Utica plans to offset the loss.

Thank you for providing this opportunity for input.  I look forward to your response.  JPC.

Mitchell

| | |
|---|---|
| **From:** | Brian Thomas |
| **To:** | Steve Eckler; "kbennett@bsk.com" |
| **Cc:** | Chris Lawrence; Kathryn Hartnett |
| **Subject:** | FW: [EXTERNAL] Re: MVHS SEQR |
| **Date:** | Friday, December 28, 2018 9:22:29 AM |

Steve-

A comment from one of our Planning Board members . . . .

Brian


City of Utica, New York
Department of Urban & Economic Development
Brian Thomas, AICP - Commissioner
1 Kennedy Plaza
Utica, New York 13502
(315) 792-0181 phone
(315) 797-6607 fax


**From:** George Mitchell [mailto:gmitchell@thefgi.com]
**Sent:** Thursday, December 27, 2018 8:54 PM
**To:** Brian Thomas <bthomas@cityofutica.com>
**Subject:** [EXTERNAL] Re: MVHS SEQR



Hi Brian,

As a member of the City of Utica Planning Board (the Lead Agency for the subject SEQR), and a Citizen of the city, I would like to submit the following comments related to the environmental impact due to the MVHS proposed hospital project:

1. **The Helicopter Pad:** While this pad is designed in accordance with applicable standards, the proposed design will have a continued impact to the surrounding area each time a medical helicopter transport approach's the ground level pad, by stirring up significant dust, diesel fumes from exhaust, and emit noise levels well beyond the ambient noise in the immediate area. Additionally, one can imagine the site of a landing helicopter close to the surrounding roads, including the main North/South

Arterial will become a distraction to the vehicle traffic. It should also be considered that as events at and around the Auditorium continue to expand, helicopter landings at ground level will become a negative impact to those "quality of life" events. I believe these significant impacts can be largely mitigated if the landing pad were to be relocated at the roof-top of the main hospital building. In fact, this solution would also reduce the overall footprint of the project, thereby further the overall project impact. While I can imagine that my proposed solution will increase the cost of the project by requiring a elevator shaft from the roof to the various building floors, It's also true that many urban hospitals incorporate this very same solution for the very same reasons I describe here. Additionally, this solution will allow the current space allocated for a ground pad to be used for future expansion to the campus as needs change. I do not believe that cost should be the only consideration for this alternate approach, when there are significant trade-offs to the environmental quality of the project as I've pointed-out here. This project must work for MVHS, the citizens of tour city and county and also for all of the other tenets of our Downtown area. I would very much like to see this impact mitigated in the final EIS and before approval of the EIS.

2. **The existing structures of St. Elizabeth's Hospital:** You and I briefly touched on this topic some time ago, but I continue to see this as a significant potential impact as a result of the proposed project. Unlike the structures at the current St. Luke's campus, the SE campus buildings, if not addressed well, will impact city neighborhoods and arguably some of the best neighborhoods within our city limits. This should not be taken lightly, or only left to be regulated by current code restrictions. I see this as a special situation given that these current facilities are expansive and border very close to the surrounding homes and neighborhoods. Without clear plans or guidelines for use and maintenance of these facilities, the risk of blight is real and the negative impact to the neighboring homes will most assuredly diminish the quality of life in those neighborhoods and to the city as a whole. I would like to discuss how we can work with MVHS and also within our legal constraints, to guarantee an excellent outcome for these existing

facilities for the betterment of all. The draft EIS does not even begin to treat this with the degree of serious impact this site can have on our community. We must insist on more here.

Brian, I submit that this project is, and should be meant to better our entire community. I believe that it will, but only if all of these important impacts are addressed with the consideration of the community weighted more heavily over project costs. We will have only one opportunity to do this project "right".

I hope that above will be treated seriously and addressed in a timely fashion. I will be very concerned about these as I consider my role in accepting the final EIS.

Sincerely,
George Mitchell

Cerini

Citation Services
Joseph Cerini
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mail PO Box 4205
Utica, NY 13504

Dec 27, 2018

**Utica Planning Board – bthomas@cityofutica.com**

City of Utica Planning Board
1 Kennedy Plaza
Utica, NY, 13502
Attention: Mr. Brian Thomas, Commissioner
City of Utica, Department of Urban & Economic Development



Ref: Draft Scoping Document, MVHS Proposed Downtown Hospital

Dear City of Utica Planning Board:
This letter is in response to the Utica Planning Board's request for public comment. I see the environmental review for downtown is not complete with testing and analysis that was still underway as of 2 weeks ago. Any consideration of environmental impact should be available before any approvals. I see no results of the collection and analysis of soil and water samples. Based on the results, testing and monitoring could go on for a extended amount of time, and in the end we may end up with razed building that need installation of sub-slab depressurization systems that would add detrimental cost to any project.
The DEIS includes a traffic study, however it was conducted in July 1918 during one of the quietest months in downtown Utica. This is the height of the vacation season, ie no hockey, and limited use of the auditorium. Also, a concern is the expansion of the Auditorium and the planned Nexus, U District. Traffic concerns haven't been addressed with Oneida County Executive Anthony Picenti touting up to 1 million visitors to downtown Utica.
Another concern is the emergency helipad. While stating that the helipad will be designed to FAA specifications, helicopter flight landings pads are designed with glide paths, landing into the wind, and have a minimum of 2000 feet and standard 4000 ft. path. In FAA literature, if there is a hazard that penetrates that zone it will be removed or properly marked. Into the wind in Utica is usually west to east, coming in over Genesee St. So either more building need to be taken down or flashing beacons for downtown Utica. No where in the DEIS is there mention of form FAA 7460-1 filed.
The downtown site was pushed on MVHS.

Thank You

Joseph Cerini

hospital heliport document included

# Hospital Heliports

## Safety, Regulatory and Liability Issues Hospitals Must Know & Consider

Provided by the
National EMS Pilots Association

NEMSPA
National EMS Pilots Association

# Disclaimer

- This presentation is intended to provide architects, contractors, hospital administrators, hospital staff, risk managers, safety officers, insurance underwriters, air medical providers and aviators with important information and guidelines that must be considered when having a heliport which will be utilized for transporting patients either to or from a hospital by helicopter. This presentation should not be considered or used as a substitute for actual Federal Aviation Administration (FAA) and or Department of Transportation (DOT) regulations in regards to heliport design, construction or aviation operations. This presentation should be used for education and information only and when regulatory issues or questions arise regarding heliports or aviation operations consult your local FAA Flight Standards District Office (FSDO) and State DOT Aeronautics Department representatives. Due to the constant changing and updating of Federal, State & Local regulations and Advisory Circulars referenced within this presentation you should always check the FAA’s online data base to insure that you are using the most up to date and current regulations and advisory circulars available. If you need assistance in finding information or have questions regarding hospital heliport construction, air medical helicopter operations, safety standards, emergency action plans or transport criteria as they pertain to the air medical industry please feel free to contact NEMSPA and we will be more than happy to help you find the answers to your questions.

# Questions

- All questions or comments in regards to this presentation and the information presented here in should be referred to the author;
  - Rex Alexander

    rex.alexander@omniflight.com

# Objectives

- Learn what agencies are involved
- Know what regulations apply
- Identify what forms must be filed
- Identify best practices
- Understand location importance
- Understand basic design & safety principles
- Recognize & address liability issues
- Understand training and education needs

# Best Practices

- To help identify some of the best practices in the industry, you will see the symbol below on specific slides.  These are not necessarily regulatory requirements but rather practices that have been proven to improve safety and enhance operations.

**Best Practices**

# Agencies, Organizations and Individuals that need to be Involved and Consulted

- Federal Aviation Administration (FAA)
- Department Of Transportation (DOT)
- National Fire Protection Association (NFPA)
- Occupational Safety and Health Association (OSHA)
- State & Local Fire Marshalls
- State Air Medical Associations
- Pilots from your Local Air Medical Providers
- Insurance Underwriters
- Risk Management & Safety Departments
- Local Zoning Commissions
- City Councils
- Neighborhood Associations

# Who To Contact

- **Any time a heliport is to be constructed, updated, changed, moved or closed you should always advise your State DOT and Regional FAA offices as soon as possible and insure that the appropriate paperwork is completed and filed.**

- **State Department of Transportation**
  - **Aeronautics Section**

    http://www.fhwa.dot.gov/webstate.htm

  - **FAA Flight Standards District Office**

    **In your area go to:**

    http://www.faa.gov/about/office_org/field_offices/fsdo/

# Hire a Consultant!

Best Practices

- All to often organizations contract with architectural and building firms that have never built or designed a heliport. Due to the many special idiosyncrasies, specific regulations and the multiple agencies involved this approach has resulted in significant delays, unsafe conditions and extremely high cost overruns.

- When going out for contract to design and build a heliport, project managers should always insist that whomever is awarded the contract hire a qualified heliport consultant for the project.

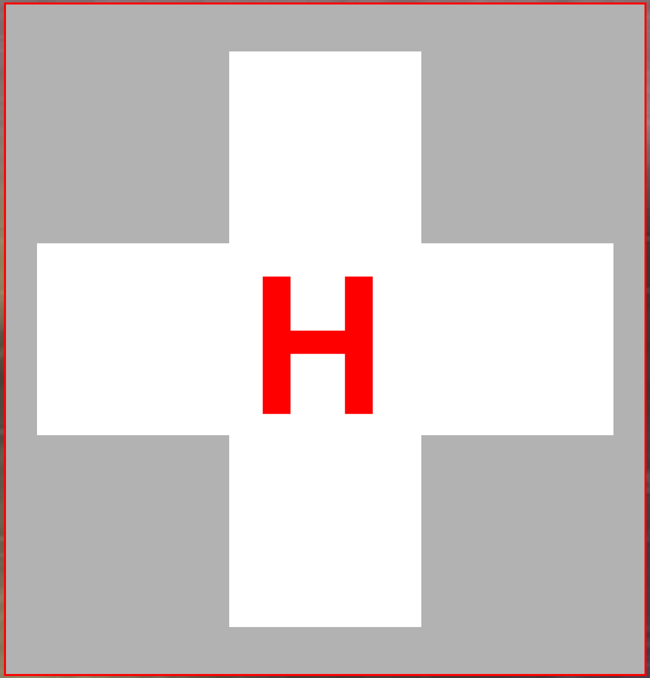
# Permanent Sites

The Federal Aviation Administration (FAA), Department Of Transportation (DOT), as well as many insurance underwriters and industry safety experts highly recommend that all hospitals construct a **Permanent**, **Licensed** heliport on their property to enhance safety, reduce liability and expedite transport.

**Regulated by the FAA & DOT**

***Heliport Design Guide***

**AC 150/5390-2B**



# Federal Aviation Regulations 157

- **FAR 157.1** Applicability
  - C) The intermittent use of a site that is not an established airport which is used or intend to be used for less than one year and at which flight operations will be conducted only under VFR. For the purposes of this part, intermittent use of a site means:
    - 1) The site is used or is intended to be used for no more than 3 days in any one week; and
    - 2) No more than 10 operations will be conducted in any one day at that site.
    - This indicates that any site used for more than one year, and or more than three days a week, and or with more than 10 operations (landings + takeoffs) per any given day for anything other than VFR flight, can not be considered intermittent and therefore should be licensed. Check with your State DOT Aeronautics Dept. for the requirements in your area.

# Before You Begin

- **Federal Aviation Regulation: FAR Part 157**
  - Requires notification to the appropriate FAA Airport District/Field Office or Regional Office at least ***90 days before*** construction, alteration, deactivation, or the date of the proposed change in use.
  - FAA Notification includes
    1. A completed *FAA Form 7480-1*
    2. A heliport layout diagram
    3. A heliport location map
  - Penalty for failure to provide notice; persons who fail to give notice are subject to civil penalty under 49 CFR 46301.
    - **References:**
      - **AC 150/5390-2B Section 104**
      - **FAR Part 157**

# Completion

Best Practices

- **NOTICE OF COMPLETION**

  - Within 15 days after completion of any airport project covered by this part, the proponent of such project shall notify the FAA Airport District Office or Regional Office by submission of *FAA Form 5010–5* or by letter. A copy of FAA Form 5010–5 will be provided with the FAA determination. Insure that FAA Form 5010-5 has been signed by the hospital administration prior to submission.

* *By completing and submitting this form to the FAA you are allowing your information to be disseminated to the public and to be included in aviation GPS data bases utilized for navigation.*

– **Reference: FAR Part 157.9**

# Definitions

- **Heliport**. The area of land, water or a structure used or intended to be used for the landing and takeoff of helicopters, together with appurtenant buildings and facilities.

- **Hospital Heliport**. A heliport limited to serving helicopters engaged in air ambulance, or other hospital related functions.

- **Medical Emergency Site**. An unprepared site at or near the scene of an accident or similar medial emergency on which a helicopter may land to pick up a patient in order to provide emergency medical transport.

    - **Note: A designated helicopter landing area located at a hospital or medical facility is a heliport and not a medical emergency site.*

  – **References: AC 150/5390-2B chapter 1**

# Decision #1

ROOFTOP

OR

GROUND BASED

# Some Pros and Cons

| Rooftop Heliport | |
|---|---|
| **PROS** | **CONS** |
| *SAFETY | *SAFETY |
| More Privacy | Higher Complexity |
| No Foot or Vehicle Traffic | Longer Construction Time |
| Better Security | Higher Cost |
| Less Obstructions | More Difficult to Install Fuel |

| Ground Heliport | |
|---|---|
| **PROS** | **CONS** |
| *SAFETY | *SAFETY |
| Simpler Design | More Obstructions |
| Shorter Construction Time | More Foot & Vehicle Traffic |
| Lower Cost | Less Private |
| Easier to install Fuel | Harder to Secure |

*How safety is ultimately influenced will be predicated on the decisions an institution makes during planning and construction and the safety protocols they set in place for future operations.

# Heliport Location

- Where a heliport is located in relationship to the hospital is critical to safe & effective operations.
  - At least <u>two unobstructed flight paths</u> into and out of the designated landing area are critical for safe operations.
  - Insure maximum clearance for helicopter operations. Do not locate the heliport too close to the hospital or other structures.
  - Whenever possible do not locate a heliport too far from the hospital. Long walking distances or distances requiring ambulance transport may negatively affect patient outcomes.
  - Do not allow a heliport to be surrounded by vertical hazards such as buildings, power lines, trees or parking garages.
  - Dependent on urban environment or future construction a rooftop heliport may be the better option for safe operations.

**References: AC 150/5390-2B chapter 4, sections 401, 402, 403, table 4-1, Figure 4-1 & Figure 4-2**

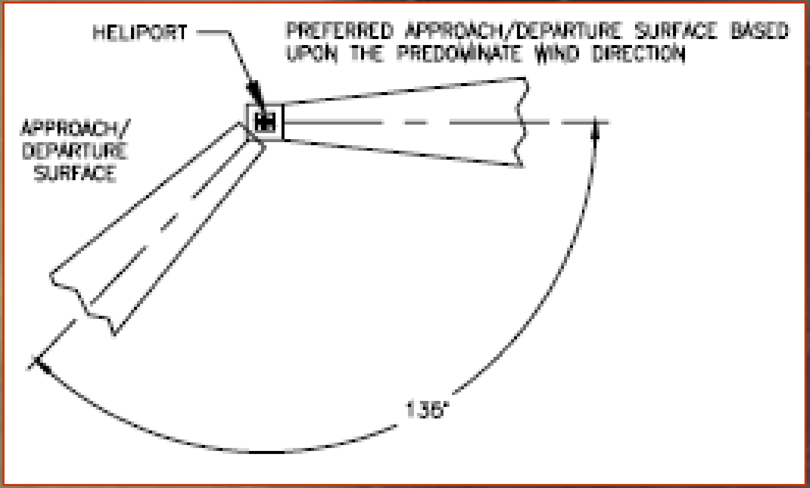
# Approach / Departure Paths

- Approach/Departure paths should be such that downwind operations are avoided and crosswind operations are kept to a minimum. To accomplish this, a heliport should have more than one approach/departure path.

- The preferred flight approach/departure path should, to the extent feasible, be aligned with the predominate prevailing winds.

- Other approach/departure paths should be based on the assessment of the prevailing winds or when this information is not available the separation between such flight paths and the preferred flight path should be at least 135 degrees.

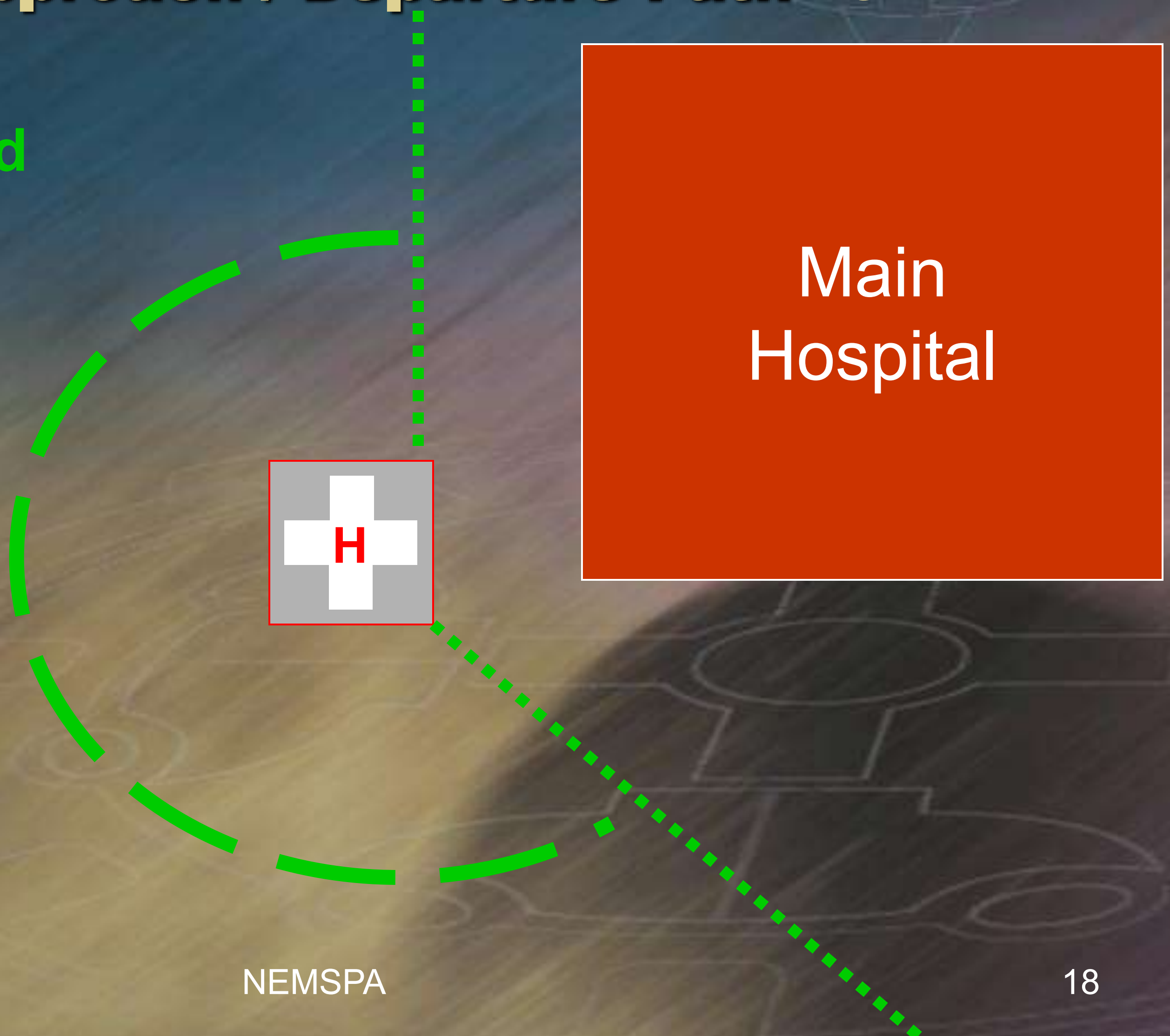
  - **References:**
    **AC 150/5390-2B chapter 4**
    **section 404a & figure 4-6**



# Planning for Growth

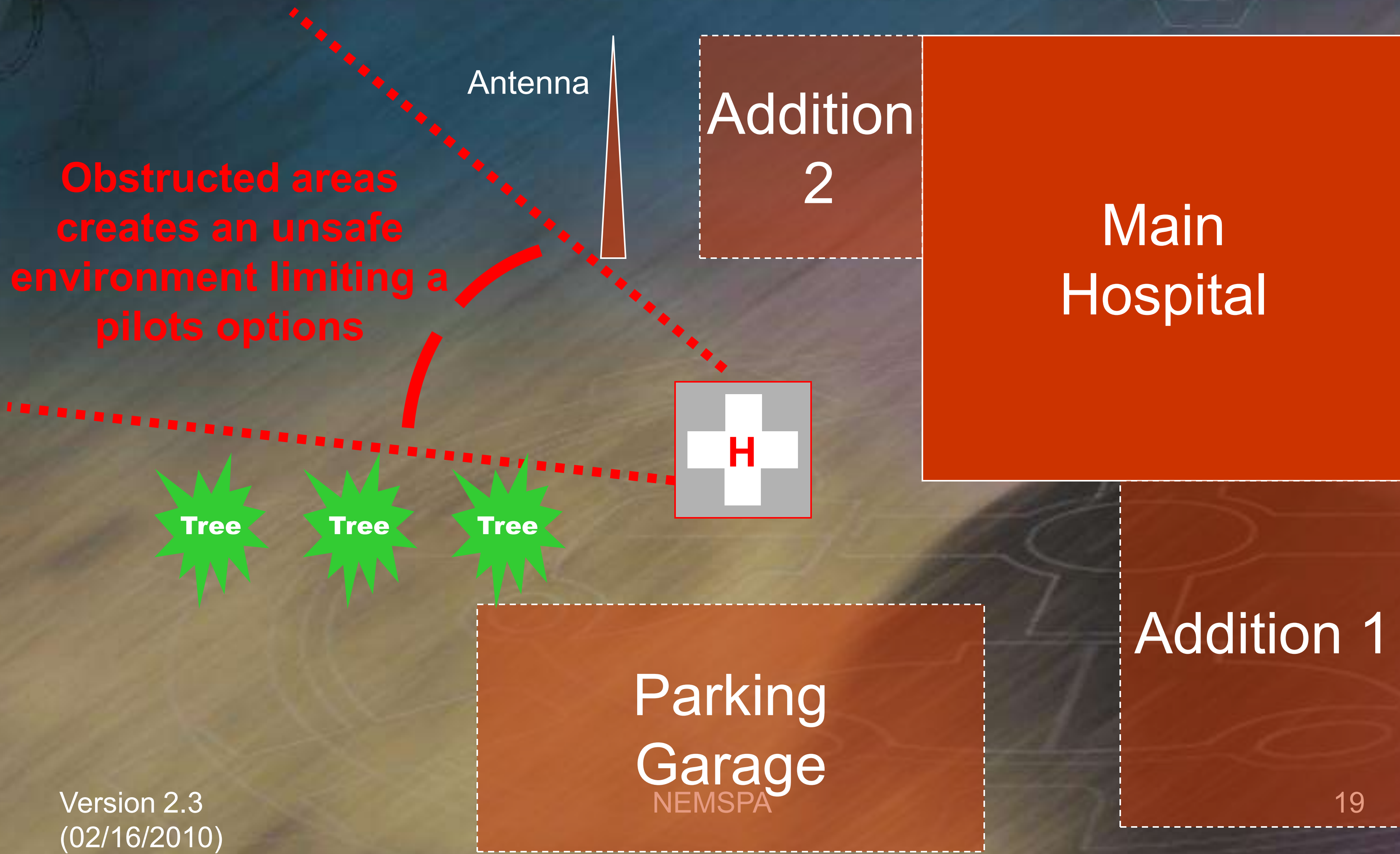
## Maximized Approach / Departure Path Fan

Large unobstructed areas create a much safer environment providing pilots multiple options



# Planning for Growth

## Reduced Approach / Departure Path Fan



# Heliport Location

- **VENTILATION SYSTEMS**
  - Insure that you identify the location of all heating, ventilation and air conditioning (HVAC) systems prior to construction.  Avoid locating a heliport near these.  Exhaust fumes from a helicopter's engines can cause serious problems for a hospital and their staff if ingested into the hospital's ventilation system.
  - Pay particular attention to which way the prevailing winds will carry any exhaust fumes from the proposed heliport site.

# Heliport Location

Best Practices

- **Exhaust Fumes**
  - **Rotor-Wash**; a column of accelerated downward moving air, that all helicopters produce at slow airspeeds during the approach and departure phase of flight can carry helicopter exhaust fumes several hundred feet below a rooftop heliport. This coupled with the influence that the architecture of a building may have on the air flow patterns must be closely scrutinized and studied when evaluating the potential impact a heliport may have on any hospital or any surrounding buildings and there fresh air intake system.

# Some Definitions

- **Final Approach and Takeoff Area (FATO):** A defined area over which the final phase of the approach to a hover, or a landing is completed and from which the takeoff is initiated.

- **Safety Area:** A defined area on a heliport surrounding the FATO intended to reduce the risk of damage to helicopters accidentally diverging from the FATO. This area should be free of objects, other than those frangible mounted objects required for air navigation purposes.

- **Touchdown and Lift-off Area (TLOF):** A load bearing, generally paved area, normally centered in the FATO, on which the helicopter lands or takes off.

  – **References: AC 150/5390-2B chapter 1**

# Some Definitions

- **<u>Heliport</u>:** The area of land, water or a structure used or intended to be used for the landing and takeoff of helicopters, together with appurtenant buildings and facilities.

- **<u>Hazard to Air Navigation</u>:** Any object having a substantial adverse effect upon the safe and efficient use of the navigable airspace by aircraft, upon the operation of air navigation facilities, or upon existing or planned airport/heliport capacity.

  – NOTE: *Obstructions to air navigation are presumed to be hazards to air navigation until an FAA study determines otherwise.*

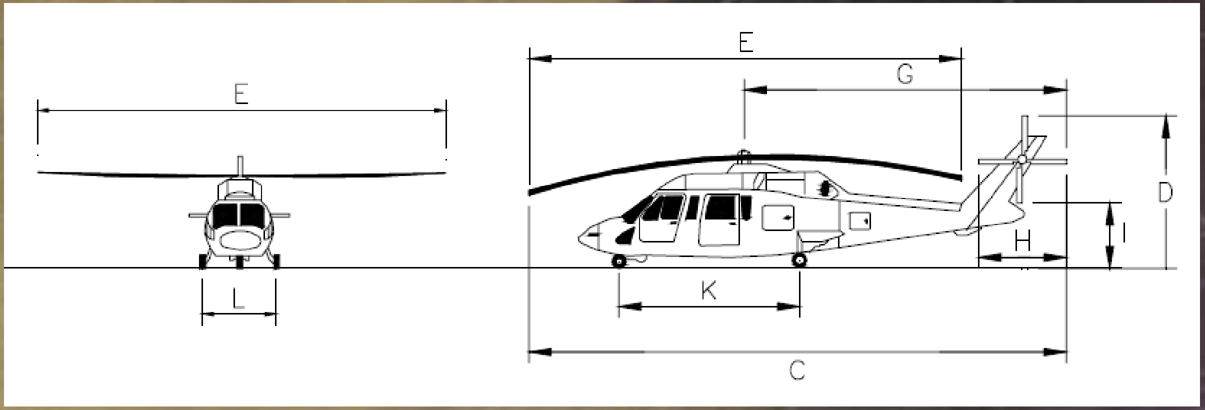
  – **References: AC 150/5390-2B chapter 1**

# Information Needed

- There are three pieces of information that will need to be ascertained from the air medical service providers that will utilize any given heliport before the design phase can be initiated.

    1. Max Gross Weight of the heaviest helicopter
    2. Rotor Diameter of the largest helicopter
    3. Longest overall length of the largest helicopter

**Refer to Appendix-1 AC 150/5390-2B**



# How big to make the pad?

- **401. TOUCHDOWN AND LIFT-OFF AREA (TLOF).**
  - **b. <u>TLOF Size</u>.** The minimum TLOF dimension (length, width, or diameter) should be 1.0 rotor diameter (RD) of the design helicopter.

  * **Hospital heliports should never have a TLOF less than 40’ X 40’ or (12 meters).**

**Reference: AC 150/5390-2B Chapter 4, section 401b**

**MINIMUM**
**40’ X 40’**

# TLOF Size

Best Practices

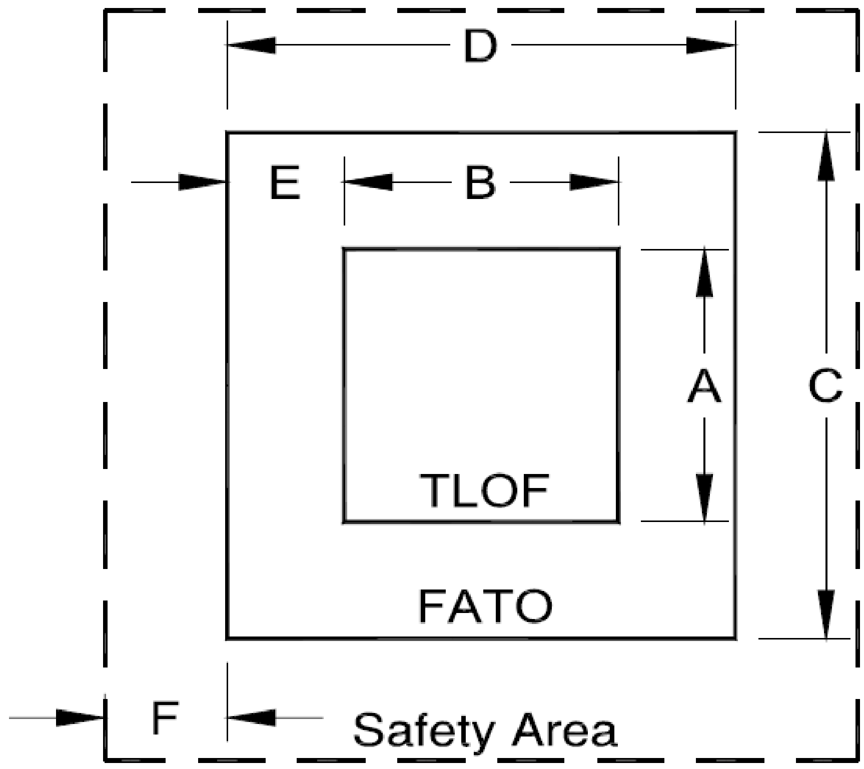
- Although 40’ X 40’ is the absolute minimum for a hospital heliport, it should be noted that due to different helicopter designs & sizes, specifically for loading and unloading patients a TLOF that is at least 45’ to 50’ in size is much more conducive to helicopter and patient safety.

  – Note: considerations must still be given for larger helicopters and multiple landing areas. 50’ X 50’ may be too small for some larger helicopter models and is definitely too small for multiple helicopter operations.

**PREFERRED**
**50’ X 50’**

# Hospital Heliport Layout

- **Ref: AC 150/5390-2B Figure 4-2**
  - TLOF/FATO/Safety Area Relationships and Minimum Dimensions: HOSPITAL
  - ***Example: S-76 Helicopter***
    - *Rotor Diameter = 44 ft*
    - *Overall Length = 52.5 ft*
    - *Max Gross Wt = 11,700*
    - *A & B = 44 ft*
    - *C & D = 81 ft*
    - *E = 17.4 ft*
    - *F – see fig. 4-1*




A – Minimum TLOF Width: 1.0 RD but not less than 40 ft. (12 m)
B – Minimum TLOF Length: 1.0 RD but not less than 40 ft. (12 m)
C – Minimum FATO Width: 1.5 OL
D – Minimum FATO Length: 1.5 OL
E – Minimum separation between the perimeters of the TLOF and the FATO [0.5(1.5 OL – 1.0 RD)]
F – Minimum Safety Area Width: See Table 4-1

RD: Rotor diameter of the design helicopter
OL: Overall length of the design helicopter

# Hospital Heliport Safety Area

- Reference: AC 150/5390 2B

**Table 4-1. Minimum VFR Safety Area Width as a Function Hospital Heliport Markings**

| | | | | |
|---|---|---|---|---|
| TLOF perimeter marked: | Yes | Yes | No | No |
| FATO perimeter marked: | Yes | Yes | Yes | Yes |
| Standard Hospital marking symbol: | Yes | No | Yes | No |
| Hospital heliports: | 1/3 RD but not less than 10 ft (3 m)** | 1/3 RD but not less than 20 ft (6 m)** | ½ OL but not less than 20 ft (6 m) | ½ OL but not less than 30 ft (9 m) |

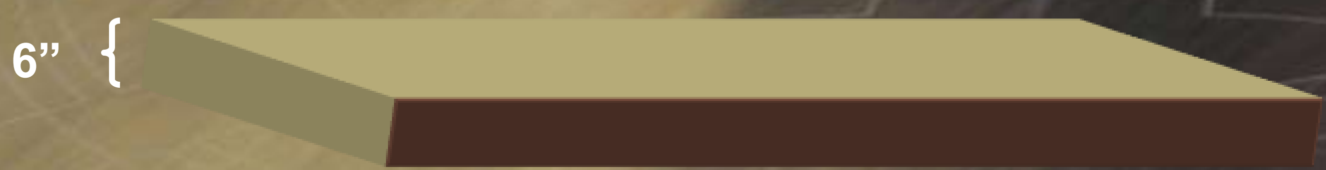
OL: overall length of the design helicopter
RD: rotor diameter of the design helicopter

** Also applies when the FATO is NOT marked. The FATO should not be marked if (a) the FATO (or part of the FATO) is a non-load bearing surface and (b) the TLOF is elevated above the level of a surrounding load bearing area.

# Ground Based Heliport Thickness

- For ground based heliports; in most instances a 6-inch thick (15 cm) Portland Cement Concrete (PCC) pavement is capable of supporting operations by helicopters weighing up to 20,000 pounds (9,070 kg). Larger helicopters will require a thicker concrete TLOF. Consult the appropriate advisory circular for additional information.
  - **NOTE:** <u>**DO NOT USE**</u> asphalt for the TLOF, helicopters can sink into asphalt during hot weather causing a serious safety hazard.

**Reference : AC 150/5390-2b Chapter 8, 807 a**



# Heliport Surface Design

Best Practices

- Insure that when applying paint that the surface is properly prepared for a non-slip surface.

- When re-applying paint add silica sand to the paint to maintain the integrity of the non-slip surface.

- The addition of reflective glass beads into <u>limited</u> portions of the painted heliport surface, specifically boundary markings, helps to identify these areas more clearly at night.  Include silica sand to insure a non-slip surface is maintained at these locations.

- Do not cover the entire heliport in reflective material, this can cause the helipad to actually blind the pilot under the right conditions.

# Rooftop Heliports

- **National Fire Protection Association**
  ***NFPA 418 Standards for Heliports***

  – 5.4.1 “The rooftop landing pad surface shall be constructed of approved noncombustible, nonporous materials.”

  – 5.4.2 “The contiguous building roof covering within 50 ft (15.2m) of the landing pad edge shall have a Class A ratting.”

    - (UL 790 Class A roof coverings are effective against severe fire test exposures. Under such exposures, roof coverings of this class afford a high degree of fire protection to the roof deck, do not slip from position, and are not expected to produce flying brands. )

# Rooftop Heliports

- **National Fire Protection Association**

  ***NFPA 418 Standards for Heliports***

  – Access and Exits

# Drainage

- **Ground-based**
  - The heliport shall be pitched or sloped so that drainage flows away from access points and passenger holding areas.
- **Rooftop**
  - The rooftop landing pad shall be pitched to provide drainage at a slope of 0.5 percent to 2 percent.
  - Drains on and surrounding the heliport should restrict the spread of fuel in order to reduce fire and explosion hazards from fuel spillage. A fuel/water separating system is a very important safety addition to all rooftop heliport drainage systems.

**Reference:**
- **AC 150/5390-2B section 801 b.**
- **NFPA 418 4.7**

# Wind Indicator

- A windsock that indicates the direction and magnitude of the wind is highly recommended and an important safety feature for all heliports.
  - Minimum of 6-8 feet in length .
  - Lighted for night operations.
  - Not too close to the heliport.
  - Ground based, elevated at least 10-15 feet above ground level and not blocked by any structures or vegetation.
  - Rooftop based, not blocked by any architectural structures and elevated at least 10 -15 feet above the surrounding structures.
  - Placement to reflect accurate wind speed and direction.

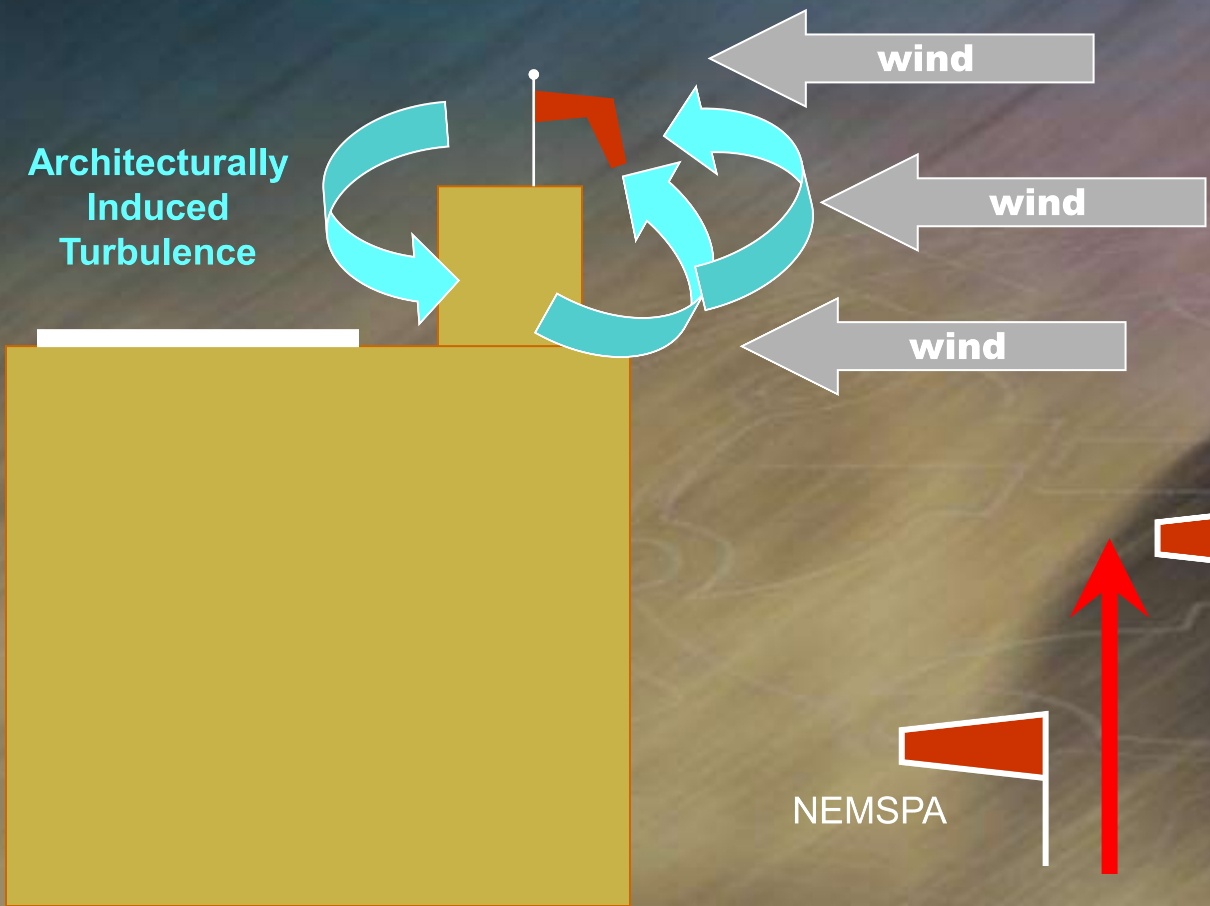
•**Reference:**

**AC 150/5345-27d, Specifications for wind cone assemblies**

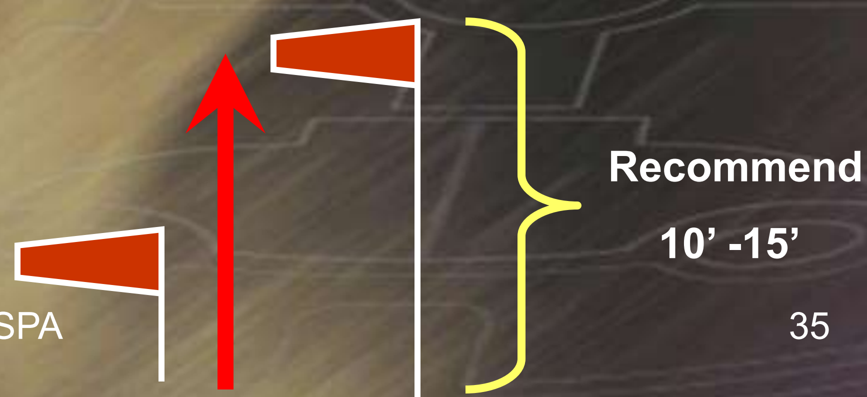
**AC 150/5390-2B section 406, Heliport Design Guide**

# Wind Indicator Location

At many locations windsocks are not elevated high enough for accurate indications.  Windsocks need to be in free open air to indicate the correct wind direction & velocity.

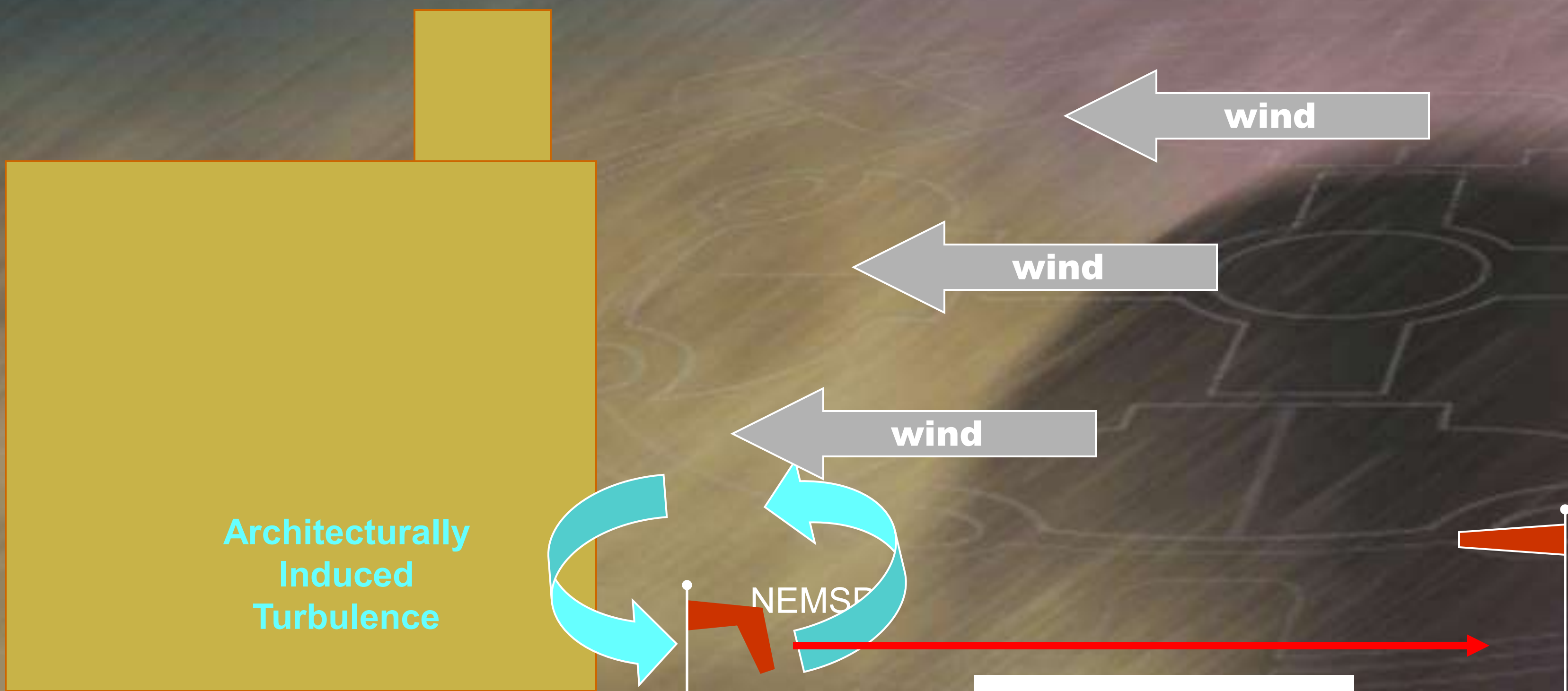



By elevating the wind sock higher above the surrounding structure you will gain a more accurate representation of wind flow and velocity.



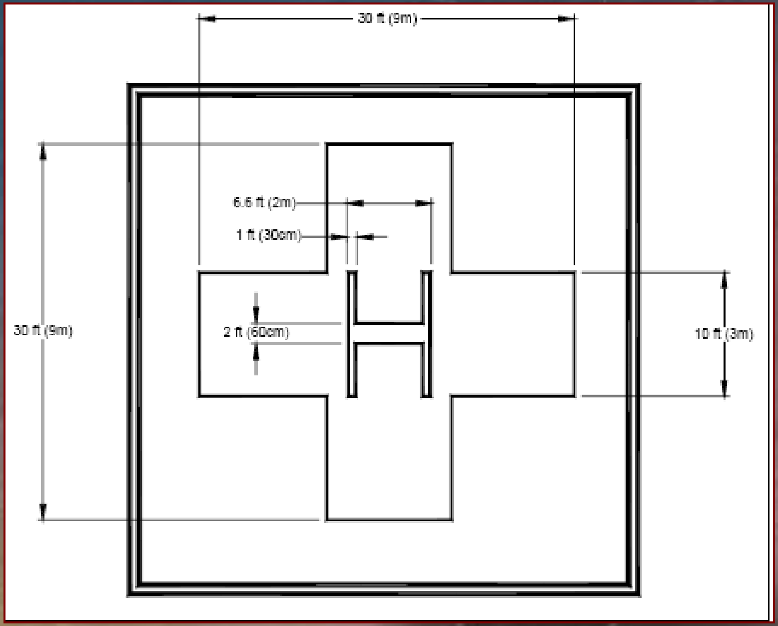
# Wind Indicator Location

Ground based wind sock need to be located in an unobstructed location.  Wind socks located to close to buildings, trees or other structures will give erroneous indications.



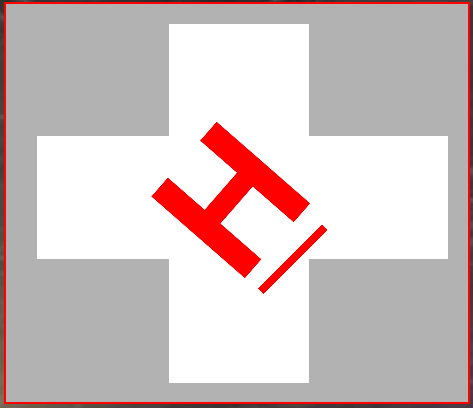
# Hospital Heliport Marking

A red capital letter **H** should be located in the center of the **cross** oriented in the preferred direction of takeoff and landing taking into account obstacles and prevailing winds. A line under the H can also be utilized to indicate the preferred approach direction.



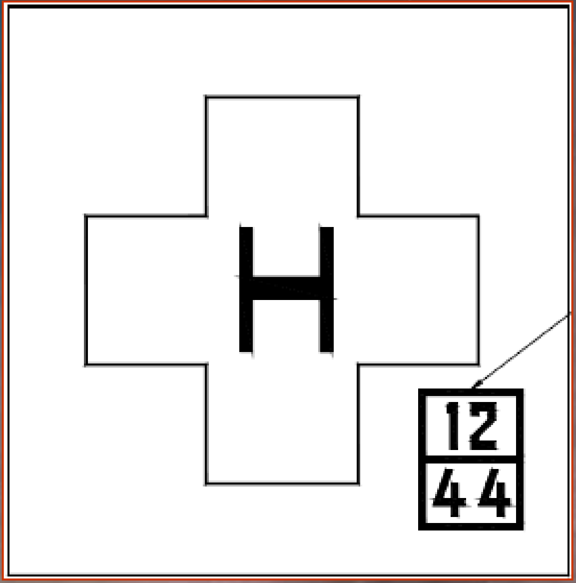

**Reference: AC 150/5390-2b Figure 4-10a**

Example: Orientation of the H tells pilots the preferred direction of approach and departure.



# Hospital Heliport Markings

- **Max Weight**
  - Is indicated by the upper number and is in thousands of pounds.

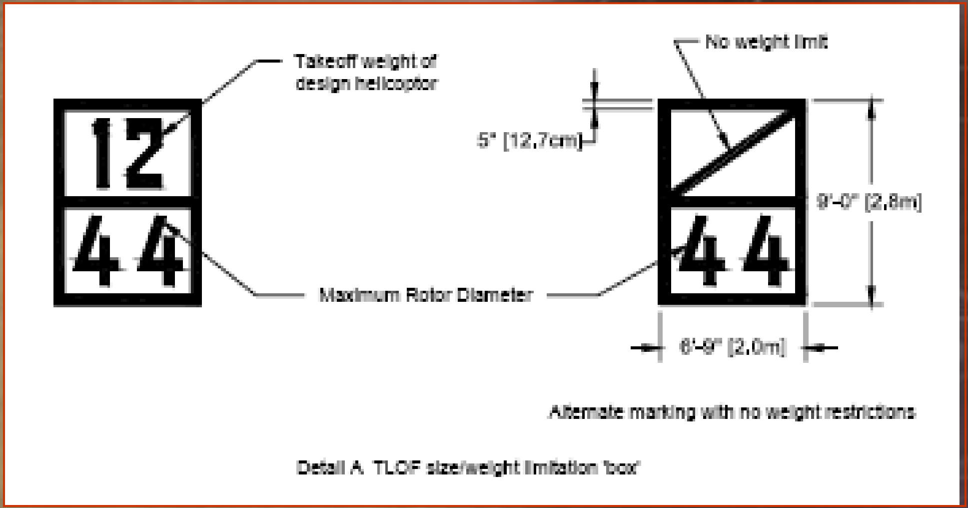



**Max Rotor Diameter**

- Is indicated by the lower number and is in feet.

**Reference: AC 150/5390-2b**

**Figure 4-12**

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# Hospital Heliport Markings

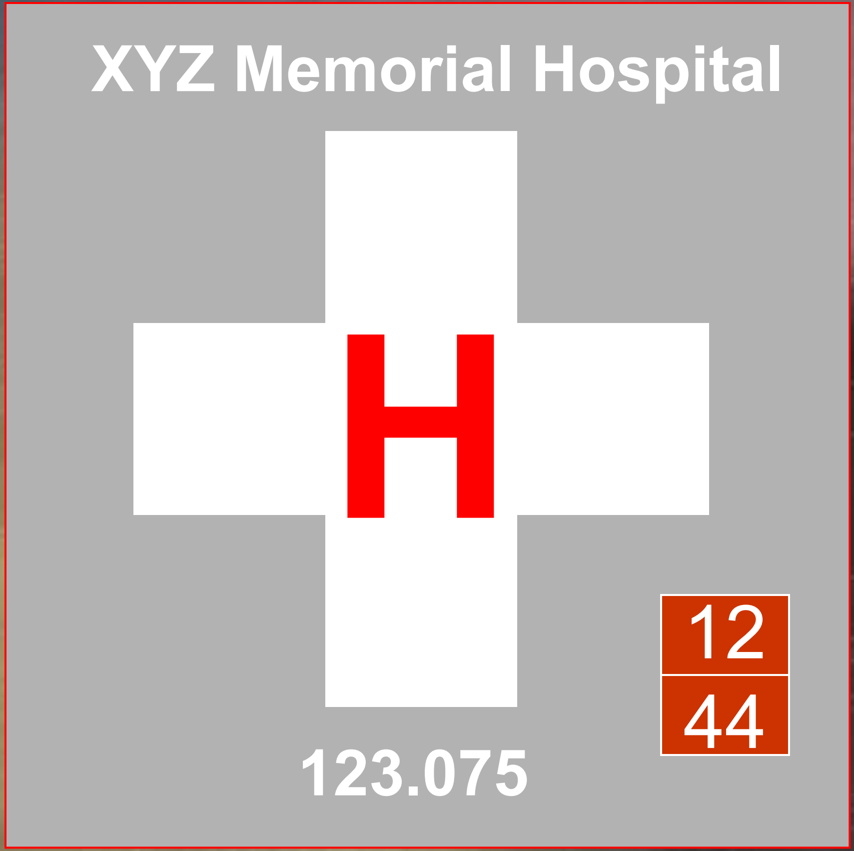
Best Practices

– Painting a "Marshalling Line" to indicate the location at the heliport that individuals should not pass without permission is a good safety practices.

# Hospital Heliport Markings

Best Practices

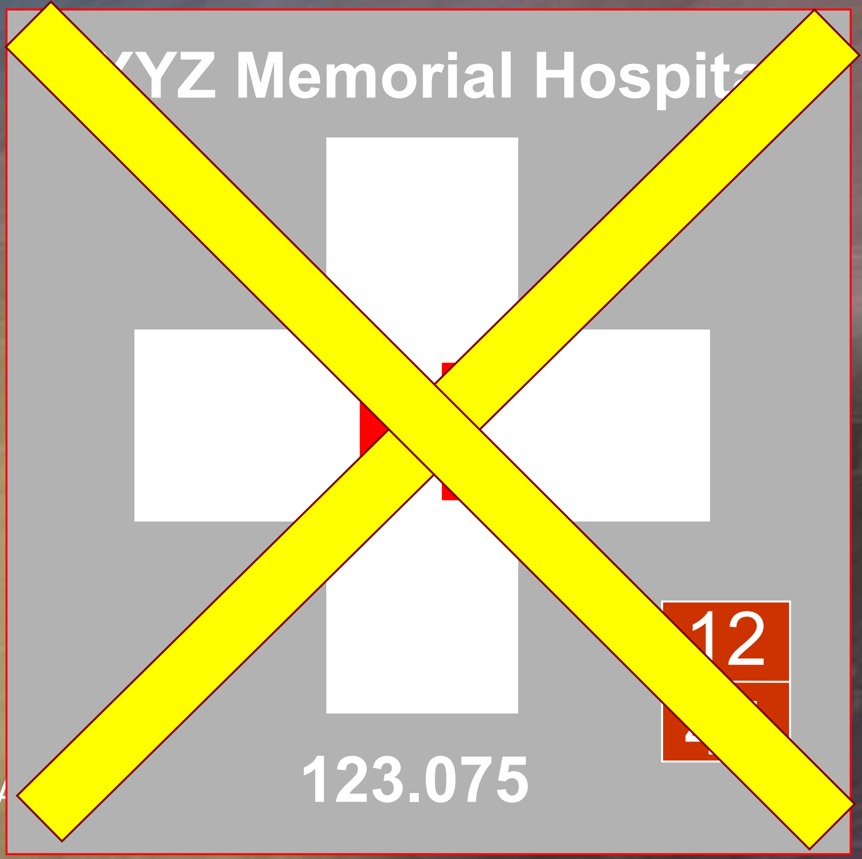
– Painting the name of the hospital on the heliport to include a radio frequency for communications or for pilot controlled lighting is another good safety practices.



# Closing a Heliport

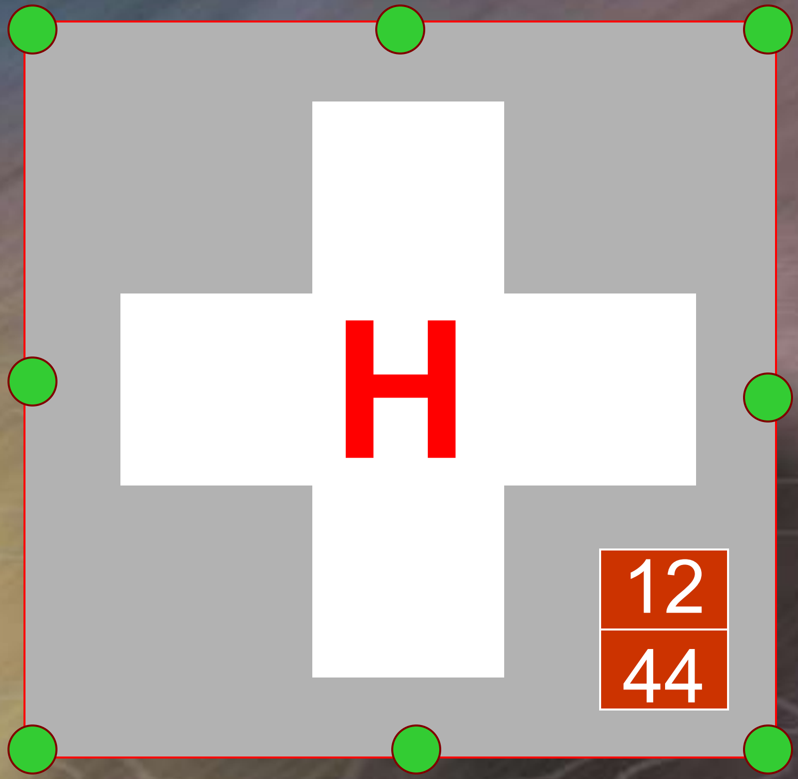
- If for any reason you need to close a heliport landing area either temporarily or permanently. Placing a large yellow X over the TLOF area is the preferred method and will signal to all pilots not to land at this location.

  - Reference:
    - AC 150/5390-2B Section 409 e, and figure 4-11



# Heliport Lighting

Flush green lights should define the TLOF perimeter. A minimum of three flush light fixtures is recommended per side of a square or rectangular TLOF. A light should be located at each corner with additional lights uniformly spaced between the corner lights with a maximum interval of 25 feet (8 m) between lights.




**Reference: AC 150/5390-2B**

**Chapter 4 Section 410a**

# Heliport Lighting

- Flood lights should never be located high above the heliport, they can blind pilots during night operations, creating very unsafe conditions.

- Flood lights should be installed at pad level and aimed down so as not to interfere with a flight crews night vision.

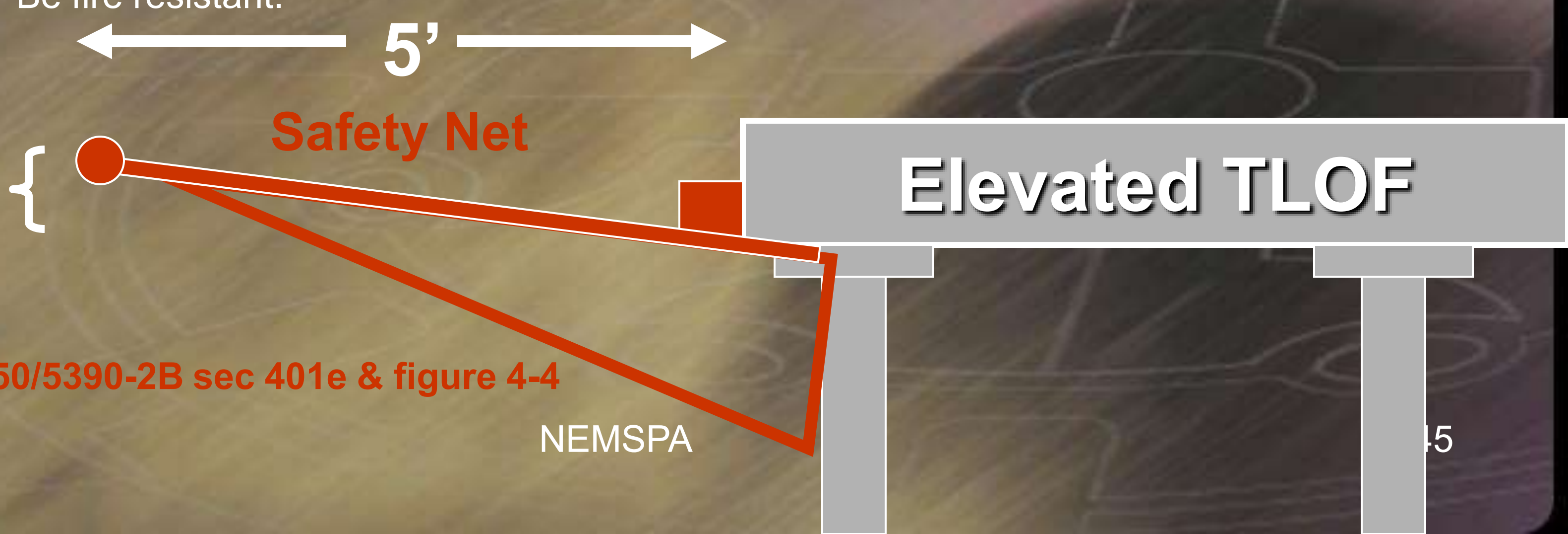
# Hospital Beacons

- When a beacon is provided it should:
  - Be located on the highest point of the hospital.
  - Not be blocked by any portions of the surrounding architecture.
  - Be on during the hours of darkness.
  - Flash white/green/yellow for hospital heliports.
  - Be regularly checked on a preventive maintenance schedule.
  - If located in a neighborhood sensitive area it may be prudent to use pilot controlled lighting.

    - **Reference:**
      **AC 150/5345-12E, Specifications for Airport and Heliport Beacons.**

# Elevated Heliports

- **Safety Net**
  - When the Touchdown and Lift-Off (TLOF) area is on a platform elevated more than 30 inches (76 cm) above its surroundings, a safety net, not less than 5 feet wide from the edge of the pad (1.5 m), should be provided around the entire pad.
  - **The safety net should:**
    - Have a load carrying capability of 25 lb/ft2 foot (122 kg/m2) or greater.
    - Be anchored and secured on <u>all</u> sides.
    - Be made of materials that resist deterioration from environmental factors.
    - Maintain its original shape and resist deformity when weight is applied to the surface.
    - Be fire resistant.




•Reference: AC 150/5390-2B sec 401e & figure 4-4

# Safety Net

Best Practices

- GOOD


- BAD


The safety net should not be installed more than 6 - 8 inches below the perimeter of the TLOF, this will help prevent serious injury from falls.  The safety net supporting structure should be attached below the net area to help reduce the possibility of injury.

# Elevated Heliports

- Access to Elevated TLOFs.
  - The Occupational Safety and Health Administration (OSHA) <u>requires two separate access points</u> for an elevated structure such as an elevated TLOF.
  - If stairs are used, they should be built in compliance with regulation 29 CFR 1910.24.
  - When ramps are required, they should be built in compliance with Appendix A of 49 CFR Part 37, Section 4.8 and state and local requirements.
  - The ramp surface should provide a slip-resistant surface.
  - The slope of the ramp should be no steeper than 12:1 (12 units horizontal in 1 unit vertical).
  - The width of the ramp should not be less than 4 feet (1.2 m) wide.
  - All turn radiuses should accommodate the specific type of gurneys and stretchers that will be utilized.

# Turbulence

- Air flowing around and over buildings, stands of trees, terrain irregularities, etc. can create turbulence that can affect safe helicopter operations.

  – **Ground-Level:** Helicopters operating from sites immediately adjacent to buildings and other large objects are susceptible to air turbulence caused by such features. Therefore, it may be necessary to locate the TLOF away from such objects in order to minimize air turbulence in the vicinity of the FATO and the approach/ departure paths.

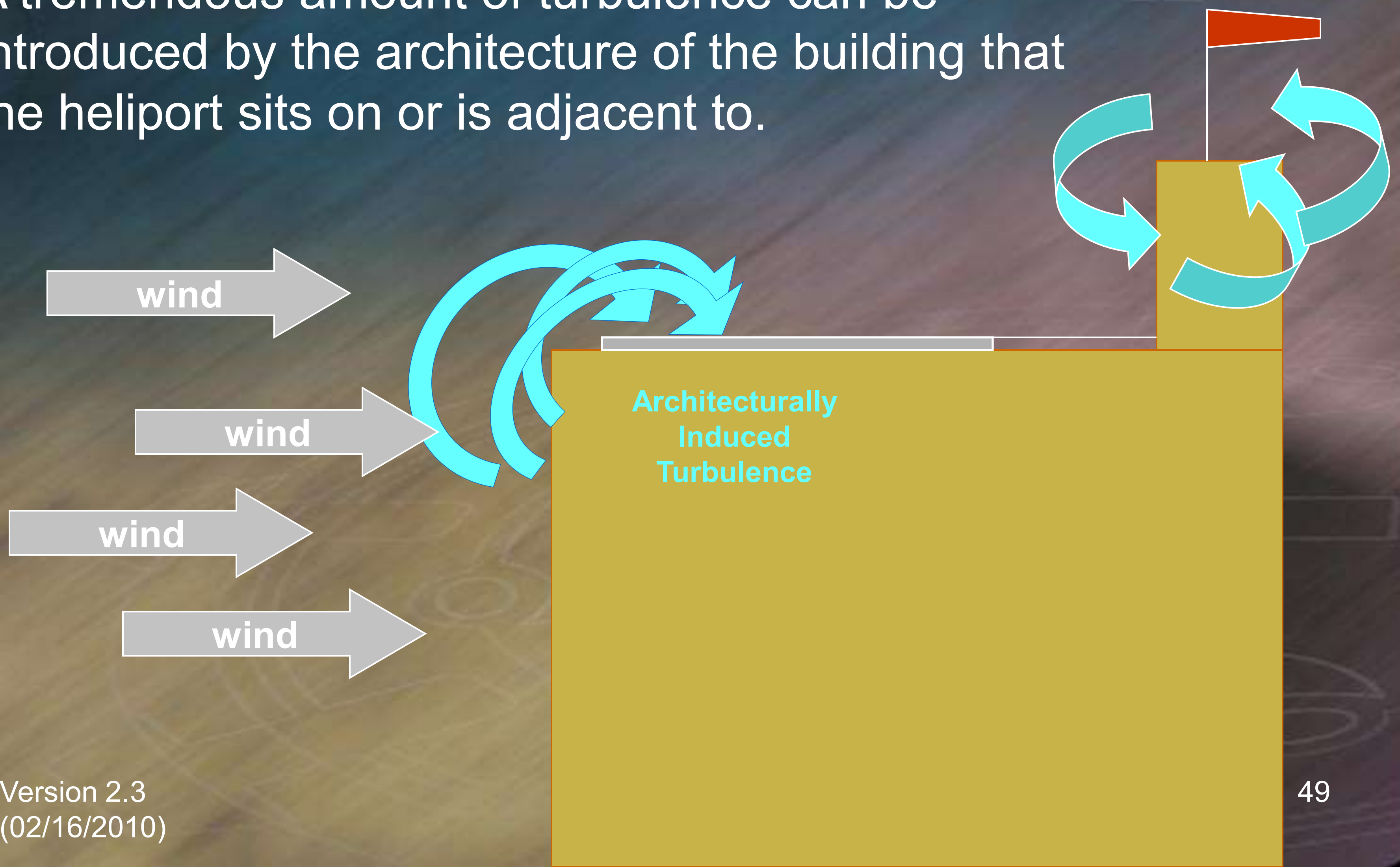
  – **Elevated Heliports:** Elevating a heliport 6 feet (1.8 m) or more above the level of the roof will help minimize the turbulence caused by air flowing over the roof edge. While elevating the platform helps reduce or eliminate the affect of air turbulence it may require a safety net to be installed.

    - **Reference: AC 150/5390-2B sec 412 c (2)**

# Turbulence

Best Practices

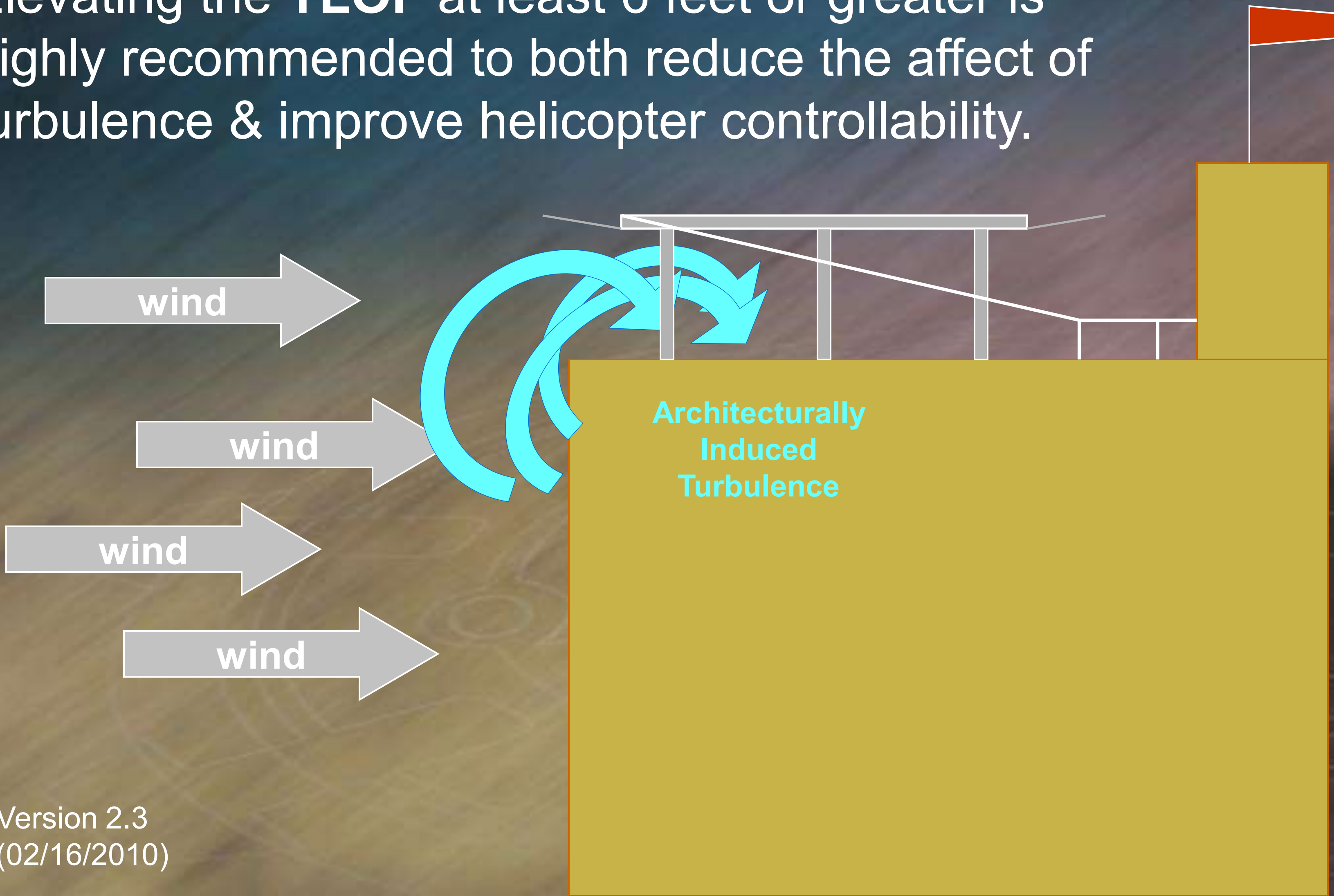
A tremendous amount of turbulence can be introduced by the architecture of the building that the heliport sits on or is adjacent to.



# Turbulence

Best Practices

Elevating the **TLOF** at least 6 feet or greater is highly recommended to both reduce the affect of turbulence & improve helicopter controllability.



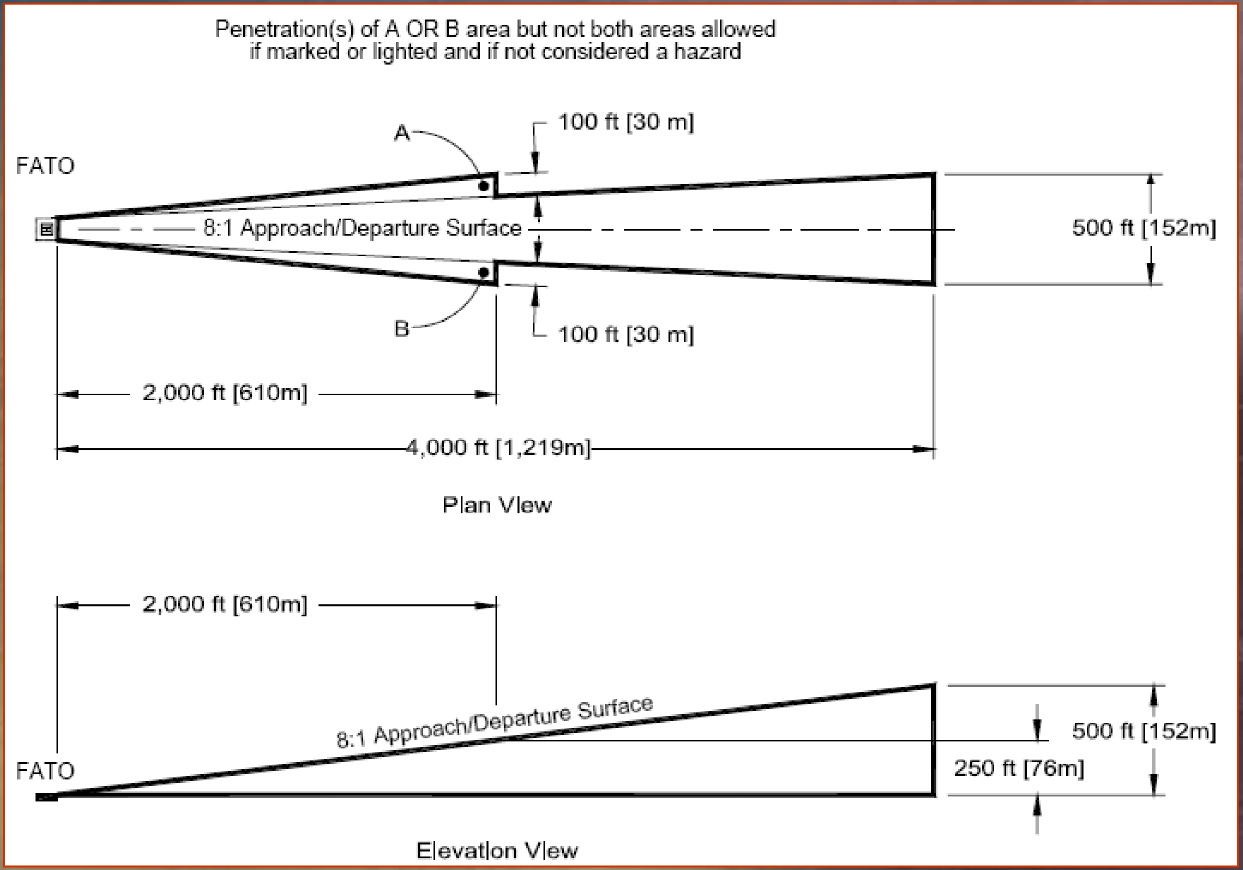
# Turbulence

- In those cases where local building codes require rooftop skirting on top of a building, louvered or perforated skirting that allows 50% or greater airflow to occur through the skirting can help reduce turbulence that may be introduced by the skirting surrounding an elevated heliports.

# Is It A Hazard

- An **8:1** ratio from the edge of the Final Approach and Takeoff Area (FATO) out to 4,000 feet is what the FAA uses to determine if an object is a potential hazard to the airspace around a helicopter landing area. If a hazard penetrates this area it will either need to be removed or properly marked.

- **Reference:**
  **AC 150/5390-2B section 404b figure 4-7**



# Marking Hazards

- All structures 200’ and above or any vertical hazard within 5,000 feet of a heliport such as the hospital, antennas, towers or other structures that are deemed to be a hazard to navigable airspace need to be illuminated with red obstruction lights.
- All power lines & guide wires in the vicinity of the landing zone should either be moved, buried or at the very least marked with the appropriate orange markers.
- The addition of reflective tape to any hazard marker is highly effective for night operations and allows pilots to see and avoid hazards.

**Reference: AC 150/5390-2B section 404, 411 & figure 4-7**
**AC 70/7460-1K Obstruction Marking and Lighting**

# FAA & Navigable Airspace

- **Obstruction Evaluation / Airport Airspace Analysis (OE/AAA)**

- If your organization is planning to sponsor any construction or alterations which may affect navigable airspace, you must file a Notice of Proposed Construction or Alteration (Form 7460-1) with the FAA.
  - Any construction or alteration exceeding 200 ft above ground level.
  - within 5,000 ft of a heliport which exceeds a 25:1 surface.

- FAA web site for Obstruction Evaluation and Airport Airspace Analysis
  - https://oeaaa.faa.gov/oeaaa/external/portal.jsp

# Cranes

- Flags should always be placed on top of cranes in the vicinity of heliports for daylight operations.
- The top of all construction cranes should be lighted during the hours of darkness.
- If possible cranes should be lowered at night if not in use.
- Always notify helicopter programs in your area when you have cranes or construction sites in the vicinity of a heliport.

***Many tower cranes are designed to weathervane when not in use and may require the closing of a heliport until removed.**

# Cranes

Best Practices

- **Proactive Safety Steps**
  - Apply reflective tape on the upper most 50 feet of the crane boom.
  - Paint the upper most 30 feet of the crane boom white and add reflective glass beads to the paint.
  - Insure all obstruction lighting is visible from altitude as well as the ground.
  - For cranes in close proximity to heliports give the crane operator a radio to communicate with inbound and departing helicopters.
  - Provide alternate landing areas and close heliports when necessary.


# Trees

Best Practices

- DO NOT plant trees near the heliport landing area. Over time they will grow and create an unsafe situation. This may require the heliport to be closed until the trees can be removed.
  - Utilizing the 8:1 ratio for hazards when considering whether a tree is or will become a hazard to navigation.
    - A 10 foot tree would be considered a hazard out to 80’
    - A 30 foot tree would be considered a hazard out to 240’
    - A 60 foot tree would be considered a hazard out to 480’

# Fences

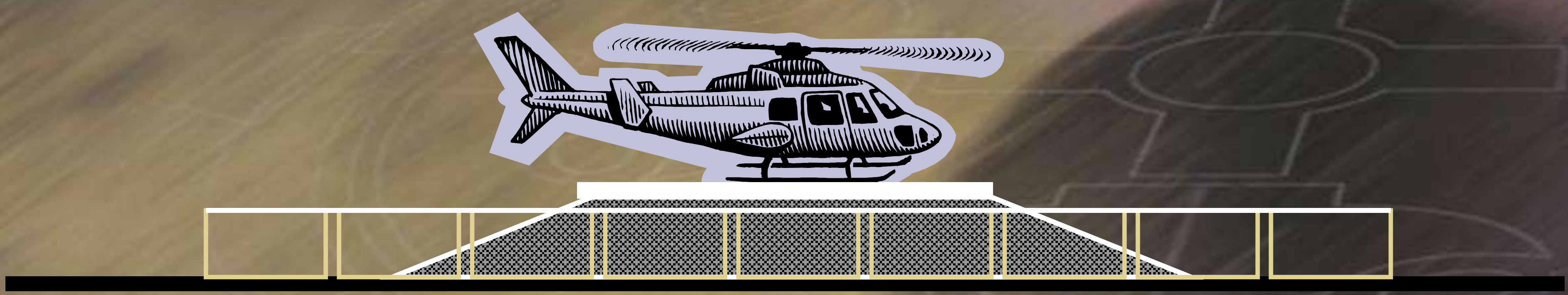
Best Practices

- A fence installed as a perimeter for a helicopter landing area is a potential hazard to flight operations.
- To help keep people away from the landing zone and maintain safety, a natural low lying vegetative barrier of plant material such as boxwood, holly or other evergreen type shrub is highly recommended.

# Fences

Best Practices

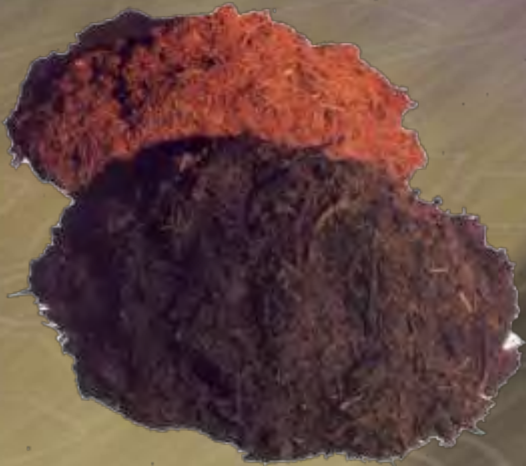
- In those situations where due to the location of the heliport a fence is required to insure a higher level of security and safety one alternative is to elevate the TLOF above the surrounding fenced in area.  This will insure that the tail rotor and landing gear remain above the obstruction.



# Landscaping

Best Practices

- Decorative bark, woodchips and small stone should never be used around the perimeter of a heliport. The helicopter's rotor wash can cause these items to become dangerous projectiles and the wood material is a fire hazard.


# Hazards

Best Practices

- **<u>DO NOT</u>** locate a helicopter landing area next to flammable liquid storage tanks, compressed gas storage tanks, and or liquefied gas storage tanks.  You must maintain a lateral distance of no less than 50 feet from the Final Approach & Takeoff Area (FATO), farther is recommended.

Reference: NFPA 418 3.2.3

# National Fire Protection Codes

- **Pertinent NFPA Standards**
  - – **NFPA 10** Portable Fire Extinguishers
  - – **NFPA 403** Aircraft Rescue Services
  - – **NFPA 407** Aircraft Fuel Servicing
  - – **NFPA 409** Aircraft Hangars
  - – **NFPA 410** Aircraft Maintenance
  - – **NFPA 412** Aircraft Rescue and Fire-Fighting Foam Equipment
  - – **NFPA 418** Standards for Heliports
  - – **NFPA 422** Aircraft Accident Response Guide

**http://www.nfpa.org**

*** It should be noted that unlike the FAA and DOT advisory circulars NFPA codes are generally mandatory in most states.**

# Fire Extinguishers

Best Practices

- For safety purposes all heliports should be equipped with at least one fire extinguisher of the appropriate size and type.
- A fire hose cabinet or the appropriate extinguisher should be provided at each access gate/door and each fueling location.
- In cases where there is a refueling system involved a foam system may be the better option.
- Fire extinguishers should be installed so that they are accessible under all conditions.

# Magnetic Resonance Imagers

- Due to the impact that an MRI has on a helicopter's instrumentation a warning sign alerting pilots to the presence of a nearby MRI is highly recommended.

**Reference:**
**DOT/FAA/RD-92/15**

**Potential Hazards of Magnetic Resonance Imagers to Emergency Medical Service Helicopter Operations**

# Other Magnetic Hazards

Best Practices

- An MRI is one of the more obvious hazards, but some that may be overlooked are large motors for elevators or ventilation systems near or under the heliport area.
  - “Steps should be taken to inform pilots of the locations of MRIs and **other similar equipment**.”
    - Reference: AC 150/5390-2B section 405

Version 2.3
(02/16/2010)

# Zoning

Best Practices

- To help insure that potential hazards to navigation, such as cell towers, radio towers or additional buildings are not constructed near a heliport. It is highly recommended that the area surrounding the heliport within 5,000 feet be rezoned to limit the height of any new construction.

- For any area surrounding a heliport to be rezoned it <u>must</u> first be appropriately licensed and on file with the FAA and DOT.

**Reference:**
**AC 150/5390-2B; section 413, Zoning and compatible land use.**
**AC 150/5190-4A: A Model Zoning Ordinance to limit height of objects around airports**

# Construction Notification

- 14 CFR Part 77, *Objects Affecting Navigable Airspace*
  - Requires persons proposing any construction or alteration described in Section 77.13 (a) to give 30-day notice to the FAA of their intent.
  - Notification of the proposal should be made on FAA Form 7460-1, *Notice of Proposed Construction or Alteration.*
    - This includes any construction or alteration of more than 200 feet (61 m) above ground level (AGL) at its site or any construction or alteration of greater height than an imaginary surface located within 5,000 feet that penetrates a 25:1 sloping surface that extends outward and upward originating at the heliport.

**Reference: AC 150/5390-2B Section 109**

# Checking Heliport Information Online

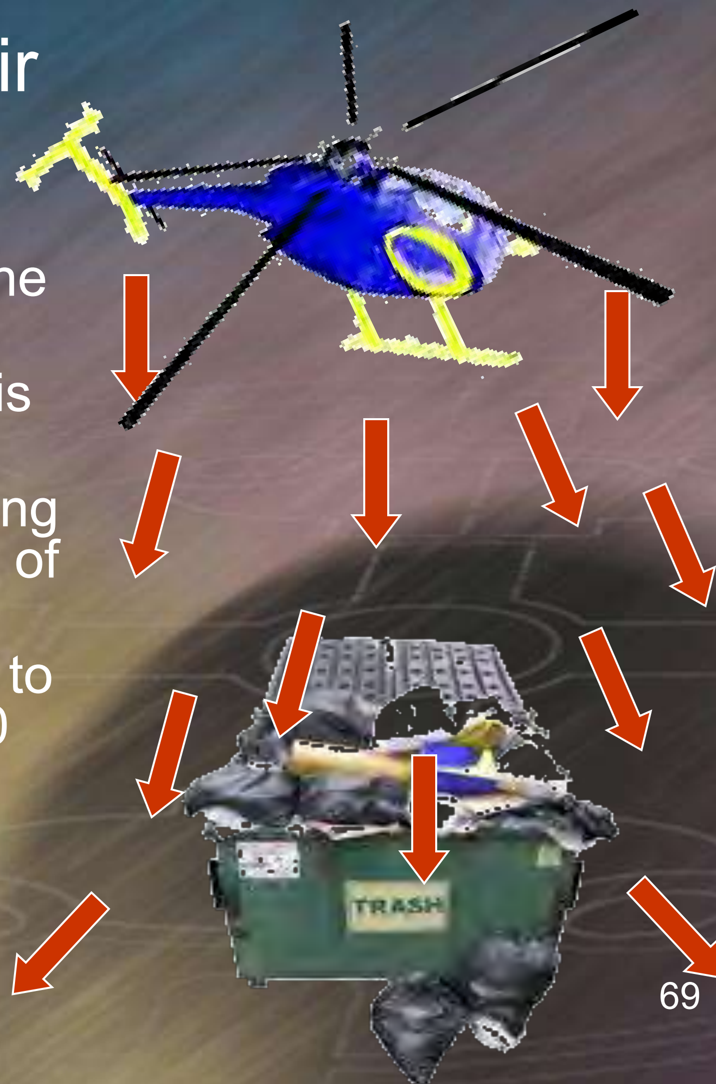


- It is a good practice for every organization who has filed an FAA form 5010 for their heliport to go online and check to see that the information on file for their heliport is current and correct.  This should accomplished at least on an annual basis.

- This information can be viewed at:
  - http://www.gcr1.com/5010web/default.cfm

# Rotor Wash

- All helicopters produce a significant downward flow of air during landing and takeoff.
  - The larger and heavier the helicopter the greater the velocity of wind produced.
  - A 75 to 100 mph downward flow of air is common.
  - Dumpsters in close proximity to a landing area should have a mechanical means of securing the lid.
  - Helicopter rotor wash has been known to pick up full sheets of ¾” plywood 30-40 feet into the air.



# Rotor Wash Safety Considerations

- Dumpsters
- Construction areas
- Sand and dirt
- Portable equipment
- Parking areas
- Pedestrian traffic
- Loose debris

# Rotor Wash Liability Concerns

- – Falls
- – Eye injuries
- – Head injuries
- – Hand injuries
- – Flying debris
- – Property Damage

# Hospital Liability

- What the lawyers say…
  - "If the crash occurred at a hospital landing zone, problems with the zone may make the hospital liable to the victims."
    - – National Trial Lawyers Journal, 02/01/2006
      - "**When Rescue Is Too Risky**"
        - » **Justin T. Green**

# Liability Reduction

- How to Limit Liability
  - Permanently designated heliport
  - D.O.T. Licensed heliport
  - Physical barriers around heliport
  - Posted warning signs
  - Safety perimeter
  - Written protocols
  - Annual training
  - Annual inspections

# Signage

**Best Practices**

- For safety and to meet basic OSHA & NFPA requirements at a minimum all heliports should have the following signs posted.





To order this warning sign go to
http://www.nemspa.org/mc/page.do?sitePageId=101398

# Security

- Keeping the area in and around a heliport secure is critical to safe operations. Helicopters in and of themselves are very tempting curiosities that attract the inquisitive.
  - Damaging or disabling any aircraft, whether it be done inadvertently, by accident or maliciously by stealing radios, navigation equipment, autopilots, engines, rotors, fuel or any other parts is in most cases, a federal offense punishable by fines of up to $10,000, imprisonment for 20 years, or even death if such a theft causes an accident resulting in loss of life.

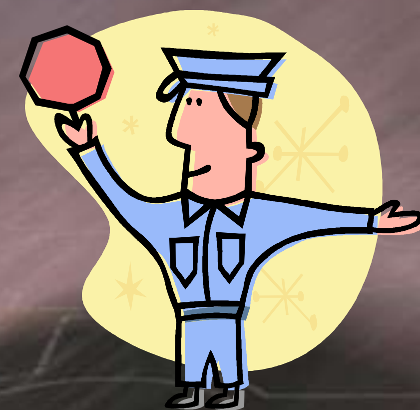
# Security

- Security Enhancements
  - Monitored close circuit television cameras
  - Motion detectors at heliport entrances
  - Increased security patrols
  - Adequate lighting
  - Posted warning signs
  - Physical barriers

# Security Personnel

**Best Practices**

- Train (annually) and designate personnel to provide security.
- Set up onsite security 7-10 minutes prior to arrival.
- Provide eye and hearing protection.
- Orient  facing away from heliport.
- Block all traffic (vehicle & pedestrian) near the touchdown area during landing and takeoff.
- Whenever possible secure a 200 foot zone around the landing area for safety.
- Security personnel should stay on site until the helicopter has departed.



# Communications

- Questions that air medical providers are going to ask a hospital.
  - Does your hospital use a privacy tone code (PL) on it's radio? If so what is the PL frequency?
  - Does your hospital use a **D**ual **T**one - **M**ulti **F**requency process (DTMF) to open the radio system?
  - Do you use the standard Hospital Emergency Room Network (HERN) frequency for reports?
  - Do you use a different frequency for air medical communications?

*-Answering these questions will help avoid problems when trying to communicate with air medical provider.*

# Gurneys and Stretchers

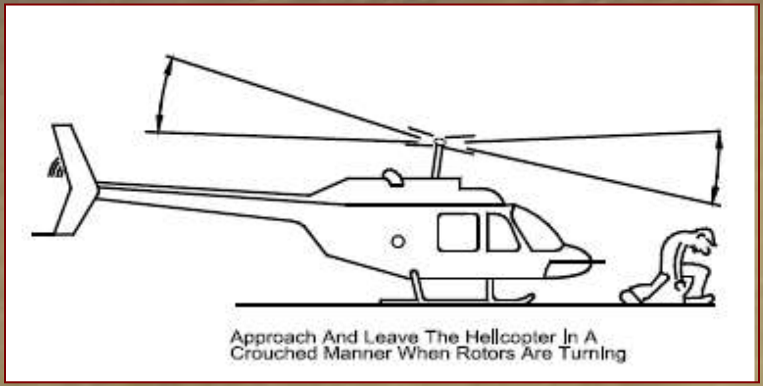
- Some helicopters require a gurney to move patients while others have their own portable stretcher system.

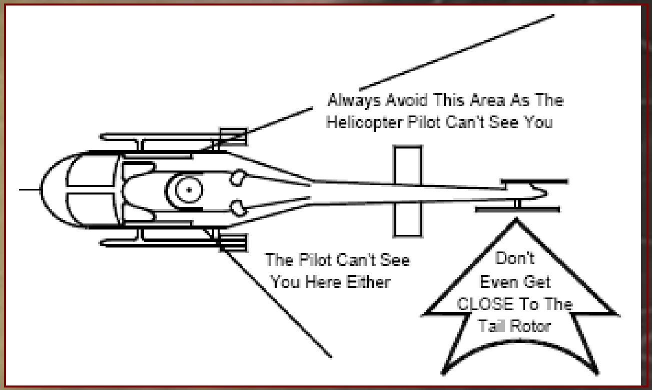
- Safety tips to remember
  - Ask if a bed or gurney is needed.
  - Don't leave gurneys unattended.
  - Lock wheels when loading and unloading
  - Keep sheets and blankets secure.
  - Allow flight teams to load and unload the helicopter.

# Safety

Best Practices

- Recommendations:
  - Do not approach a running helicopter unless instructed to do so by the flight team.
  - Always approach from the <u>front</u> in full view of the pilot and only when the pilot says it is safe to do so.
  - Do not get involved with hot off-loading or on-loading of patients unless you have been properly trained to do so.
  - Secure all loose items in the vicinity of the landing area.

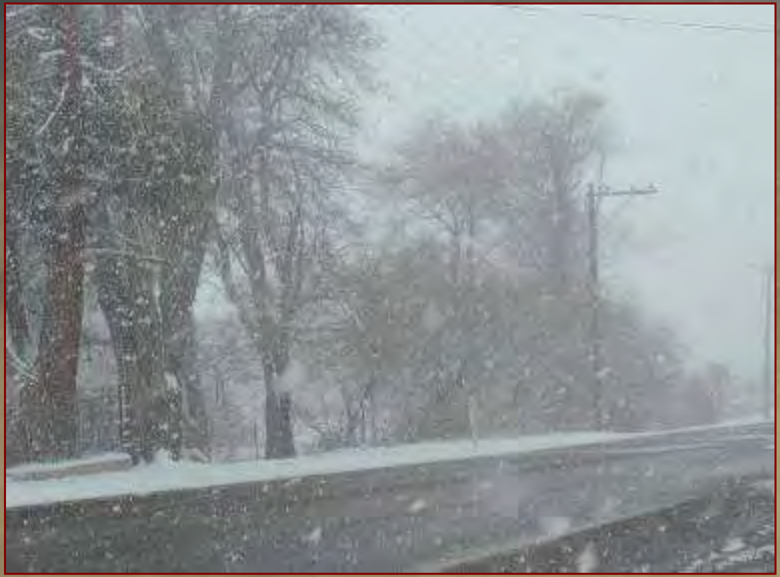


# Inclement Weather

Best Practices

- Weather extremes such as snow, ice or heavy rain may make it impossible to use certain areas for landing zones. An alternate site or airport may be necessary. It is a good idea to have these locations and procedures in place before they are needed.



# Snow & Ice Removal

- To insure maximum safety in and around the landing area, snow and ice should always be removed prior to the helicopters arrival whenever possible. A helicopter's rotor wash can propel large pieces of ice with dangerous velocity and dry powder snow can create a dangerous whiteout conditions.

- Snow melt systems utilizing steam, heated glycol or electrical heating coils may be the best course of action for rooftop heliports and is also a viable option for ground based heliports.

•**DO NOT** use rock salt to remove snow or ice. Due to its size it can become a projectile and cause serious injury.

•Rock salt is also extremely corrosive and damaging to helicopters. Use a product containing urea or other noncorrosive aviation friendly alternative.


# SOP

## Standard Operating Procedures

- All agencies that work with air medical helicopters should have written procedures and protocols set in place for their employee's covering at a minimum the following items.
  - Who can call for air medical transport.
  - When to call for air medical transport.
  - How and when to prepare for arrival.
  - Information to communicate.
  - What to do in case of an emergency (EAP).
    - Utilize NFPA-418 appendix B as a guide

# Regular Training

Best Practices

- Documented annual safety training for all employees and staff involved with helicopter operations is highly recommended.  In most cases your local air medical program can assist with or provide this type of training.

# EMERGENCIES

- In case there is a helicopter emergency or accident at your facility:
  - First have a plan; utilize NFPA-418 Appendix B to help construct an emergency action plan and training guide.
    - Make the appropriate 911 calls to fire rescue.
    - Contact the helicopter operator.
    - Do not approach the helicopter until it has stopped moving.
    - Report & document all incidents.

Prior education and training are the ultimate equalizer in an emergency situation. Contact the air medical provider in your area to help you outline a good emergency action plan.

# Fixing Problems

Best Practices

- If you have a problem or an incident occurs during an air medical transport use these rules of thumb.
  - **Discuss the problem with the pilot and med team immediately.**
  - **Notify the flight program that day.**
  - **Follow up with a written detailed report within 48 hours to the transport agency.**
  - **Follow up again in 10 to 14 days to insure loop closure.**

# Communicating Hazards

Best Practices

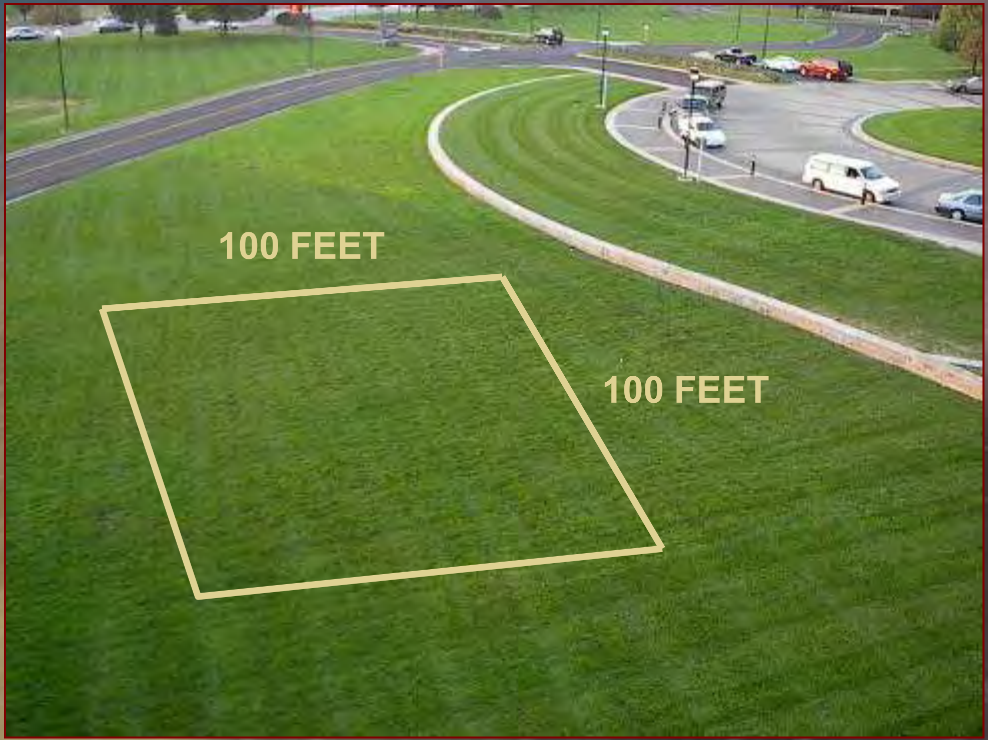
- Notify all helicopter operators that transport patients to or from your facility anytime:
  - There is any construction in the vicinity of the landing zone.
  - A large crane is erected within a ½ - 1 mile of a landing area.
  - An antenna is erected within 1-2 miles.
  - The landing site has been closed, changed or moved.

# 2 Helicopters and 1 Site

- If two helicopters are inbound to a facility at the same time but there is only one landing zone available, some solutions would be to.
  - Set up an alternate LZ onsite if possible.
  - Divert the second helicopter to an offsite LZ or airport if necessary.
  - Have the first helicopter depart as soon as their crew has been unloaded then land the second helicopter and unload their crew.
    - Always insure that both helicopters are aware of the other inbound helicopter as early as possible.

# Temporary Non-Standard Landing Zone Selection

- Level: No more than a 5 degree slope.
- Firm: Concrete, asphalt or grass.
- No loose debris within 200 feet.
- No overhead obstructions



# Marking and Identification

## Non Permanent Locations:

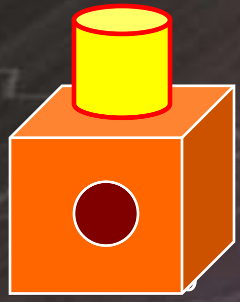
**Mark all four corners of touchdown area, using;**

- **4** Flares anchored to the ground, if you deem them safe.
- **4** Orange cones, weighted if possible.
- **4** Strobes, anchored to the ground.

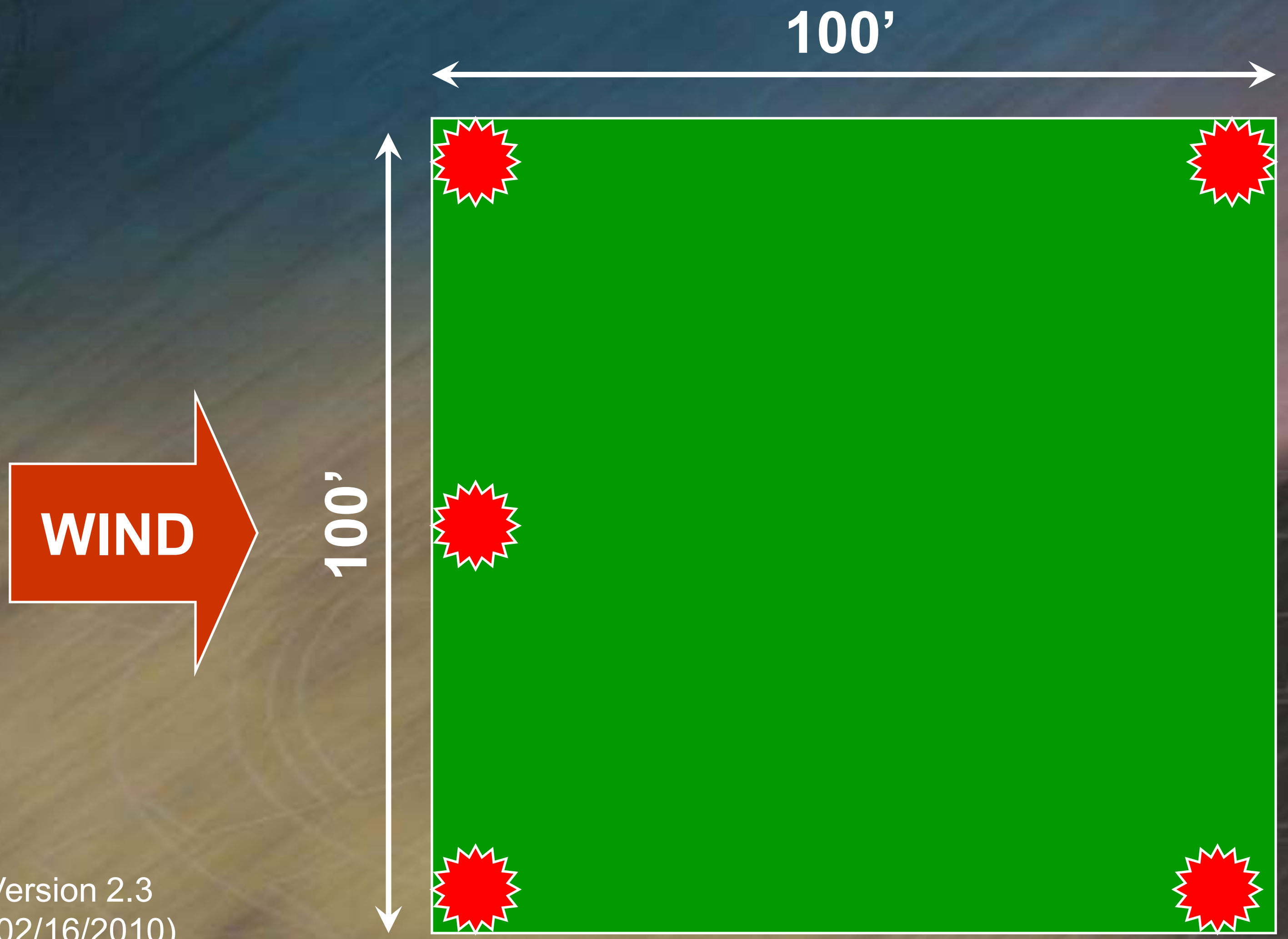
Use one additional marker on the side the wind is coming from.

**Do Not Use:**

***People, police tape or fire hose to mark LZ***



# Temporary landing zone setup



# Sprinkler Systems

- Insure that any sprinklers that are in the vicinity of the temporary landing area are turned off before the helicopter arrives.

# DANGEROUS PRACTICES

- **<u>Weather Shopping</u>** or calling multiple air medical programs after being turned down for weather without informing subsequently called operators of the weather turndown.
  - If you are ever turned down for transport by an air medical provider for weather or any other reason always inform any subsequently contacted providers of this fact so that they have this information to make an informed safe decision.

# DANGEROUS PRACTICES

- Calling two air medical providers when there is only one patient to transport, to see who gets there first.
  - This is a true safety hazard and a recipe for disaster. It may also initiate additional billing directly to the hospital by the other air medical provider that does not transport a patient. Worst of all this practice takes assets away from other regions that may desperately be in need of air medical transport.

# What can be done about a Dangerous Heliport?

Best Practices

- If after attempting to address and correct dangerous safety issues at a heliport there still exists an unacceptable level of risk the follow actions may be necessary.
  - Bring the shortcomings of the heliport with recommend corrective actions to the attention of the board of directors of the hospital in writing by certified mail.
  - Contact the state or regional air medical organization in your area to help address the issues with the hospital.
  - Contact your regional DOT and FAA officials for help.
  - Submit a NASA report on the heliport: http://asrs.arc.nasa.gov
  - Cooperative restriction of operations by all air medical providers.
  - Complete refusal to utilize facility.

# Useful Links

| ORGANIZATION | WEB ADDRESS |
|---|---|
| National EMS Pilots Association **NEMSPA** | http://www.nemspa.org |
| Air Medical Safety Advisory Council **AMSAC** | http://www.amsac.org |
| Federal Aviation Administration **FAA** | http://www.faa.gov |
| Department of Transportation **DOT** | http://www.dot.gov |
| National Fire Protection Association **NFPA** | http://www.nfpa.org |
| Occupational Safety & Health Administration **OSHA** | http://www.osha.gov |
| Helicopter Association International **HAI** | http://www.rotor.com |

**If you have additional questions or need information on heliports or helicopter operations please contact the**

***National EMS Pilots Association***

NEMSPA

National EMS Pilots Association

**http://www.nemspa.org**

Keblish

SEQRA requires the filing of Draft Environment Impact Statement (DEIS) for proposed actions that have a potential for significant negative impact to the environment. The DEIS filed for the MVHS Integrated Health Campus (IHC) by MVHS requires a large amount of revision, additional information, and new studies before being accepted by the lead agency as a "Final" Environmental Impact Statement.

**Procedural**

The DEIS is deficient for a number of procedural issues. While many of these deficiencies can be downplayed as unfortunate consequences of a complicated project, all them can be addressed and fixed with additional diligence. To fulfill the spirit of SEQRA, all these concerns need to be addressed. They include:

1. <u>Sponsor designations/inclusions:</u> Sponsors or applicants have the right to prepare a DEIS, however the DEIS should provide an adequate perspective of a proposed action in order to fulfil the spirit at letter of SEQRA law. In order to achieve that objective, especially for the purpose of allowing the lead agency to consider what alternatives and mitigations are feasible, the following must be considered and addressed:
    a. **MVHS** –Mohawk Valley Health System is listed as the sponsor of this action, however MVHS is not responsible for the whole action of this project and therefore the impacts, alternatives, and mitigations detailed in the DEIS are inadequate to understanding the full scope of the project. The DEIS is too limited in fulfilling its statutory purpose by limiting the sponsor to just MVHS.
    b. **City of Utica** –The City of Utica has entered into a Memorandum of Agreement (MOA) with the County of Oneida and MVHS to build the municipal parking garage, which is a component of this action. By omitting the City of Utica's responsibilities as a sponsor, the DEIS is too narrow to assess, describe, discuss or evaluate impacts, alternatives, and mitigations related to the actions the City of Utica will be taking in this project.
    c. **Oneida County** –Oneida County has entered into an MOA with the City of Utica and MVHS to build the municipal parking garage. As primary finance, design, contracting and condemning entity, Oneida County is a primary sponsor within the scope of this action.[1] By omitting Oneida County's responsibilities as a sponsor, the DEIS is too narrow to assess, describe, discuss or evaluate impacts, alternatives, and mitigations related to the actions Oneida County will be taking in this project, especially in evaluating the objectives, alternatives, impacts, and mitigations of the proposed parking garage.
    d. **New York State** –New York State (NYS) is the primary funding and programing agent for this project via the "Oneida County Health Care Facility Transformation Program," which provided $300 million in capital funding to consolidate multiple licensed health care facilities into an integrated system of care. The EIS must include a description and evaluation of the range of reasonable alternatives to the action that are feasible, considering the objectives and capabilities of the project

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[1] https://www.uticaod.com/news/20181010/oneida-county-approves-design-firm-for-hospital-parking-garage

sponsor.[2] The objectives and capabilities of NYS are more integral to this project than any other participant driving this project.

2. Segmentation: The DEIS fails to consider all components and phases of the proposed action:
    a. **The Kennedy Garage** –The project will include refurbishments to the Kennedy Garage, however the planned actions, timeline, and resulting impacts are not evaluated by the DEIS.[3]
    b. **Relocated businesses, facilities, organizations, and activities** –The proposed site for the IHC is a city downtown and encompasses 25 acres. A necessary and known consequence of the proposed action is to displace or relocate (in some cases forcibly) many community assets, however planned and speculated relocations are not evaluated by the DEIS.
    c. **Decommissioning SEMC and FSLC** –A known and necessary component of this project is the decommissioning of two existing hospitals. While the DEIS tries to speculate on reuse plans, it does not address at the minimum what the impacts will be to the two campuses and the surrounding area should the two main facilities become dormant, especially as it relates to their integration into and removal from existing community, energy, utility, transportation, and economic networks and systems.
    d. **The "U" District** –The DEIS makes reference to the "U" District while discussing the benefits of the project. While the actions proposed under the "U District" have not yet undergone a SEQR, it is possible from the references made that elements of this project are predicated, planned, or integral to that project. Since that plan is not approved, it is important not to let elements of that proposal be "smuggled" into this one until that plan is approved in its entirety. Since both projects may be constructed simultaneously (including the NEXUS center, which this DEIS does address), it may be necessary to evaluate the collective impacts of both projects before proceeding with or approving either.

3. Substantive Compliance: In order to comply with SEQRA, a "hard look" must be given to potential negative impacts. In too many areas of concerns, the DEIS overlooks negative effects and instead focuses on potential benefits:
    a. **Identified negative/adverse impacts –**In several instances, the DEIS mentions possible negative consequences, but does not offer discussion, study, or analysis of the likelihood, magnitude, or duration of those impacts:
        i. Outdoor Storage of Materials (Page 43)
        ii. Bulk Storage of Oil/Fuel and/or Chemicals (Page 46)
        iii. Growth Inducing Aspects (Page 113)

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[2] https://www.dec.ny.gov/permits/6424.html

[3] "The estimated cost for the project is five hundred twenty three million five hundred seventeen thousand eight hundred seventy five and no/100ths dollars ($523,517,875), which includes the refurbishment of Kennedy Garage and the development of the proposed parking facility discussed herein, with funding above and in addition to the state grant to be from additional public and private funding to be secured by MVHS with the assistance of City, County, and Mohawk Valley EDGE." -MOA Recitals

b. **Minimizing negative/adverse impacts** –In order to avoid addressing or legitimizing negative consequences of the proposed action, the DEIS overlooks or minimizes adverse consequences rather than a straightforward approach demanded by SEQRA:
   i. In discussing Community Character, negative/adverse impacts are mixed in with speculative benefits to produce mixed analysis
   ii. In discussing Growth Inducing Aspects, a consideration of negative/adverse impacts are replaced with a description of "potential additional development, which the proposed action may support or encourage"
   iii. Negative impacts are relegated to footnotes, rather than fully addressing them. [Footnote 120: "The MVHS analysis also recognized that the project would result in a loss of City property tax income (estimated to be approximately $115,300/year)."]

These procedural errors, omissions, and mischaracterizations undermine the legitimacy of this process[4] and violate the purpose of the DEIS. [5] In order to bring the DEIS in line with the intent of SEQRA and the purposes of an EIS, a rewrite is necessary address the listed concerns and may even require a new scoping to ensure a new DEIS complies with the necessary guidelines set forward. A new revised DEIS should include a discussion of all elements of the action, including the proposed parking garage, MOB, and CUP, as well as the impacts and alternatives to each from the perspective of ALL involved sponsors of this action.

Content

1. Missing EIS elements required by SEQRA:
   a. "**A concise description of the proposed action, its purpose, public need and benefits, including social and economic considerations.**" In order to be compliant, the DEIS should address issues in a holistic approach, contemplating impacts beyond the confines of narrow definitions and in conjunction with other impacts.
      i. The DEIS admittedly ignores social and economic considerations ("Potential effects that a proposed project may have in drawing customers and profits away from established enterprises, possible reduction of property values in a community, or potential economic disadvantage caused by competition or speculative economic loss, are not environmental factors and will not be addressed in the DEIS." Page 102)
   b. "**A concise description of the environmental setting of the areas to be affected, sufficient to understand the impacts of the proposed action and alternatives.**" The DEIS offers only a very narrow understanding of impacts and alternatives.

[4] "so that these impacts can be identified and avoided or mitigated to the maximum extent practicable"
[5] "This DEIS has been prepared to evaluate potentially significant adverse impacts and reasonable alternatives."

i. The DEIS paints an incomplete picture of the areas impacted by the project. While it does discuss potential implications to the FSLC and SEMC, it does not indicate the magnitude, likelihood, or duration of any impacts known to be caused by the closure of the hospital facilities. It does not describe the impact of having to relocate the Utica City Police Maintenance Facility, a known consequence of this project.[6] It does not describe the impacts of relocating businesses displaced by the project, another known consequence. Does not discuss the impact on the existing energy microgrid located at the St. Luke's Campus (AKA the Burrstone Microgrid).

ii. No descriptions of impacts from alternative sites are offered, merely a discussion about what was offered for hospital-programming analysis in the site selection process.

2. Missing information critical to understanding impacts, alternatives, and mitigations:
    a. **Rationales for selecting finalist sites.** The site selection process, flawed as it was, determined that the Psych Center and Downtown were the best two sites. But no rationale is given for why the Psych Center was eliminated from final consideration. Additionally, it is not made clear why the Downtown site was selected over the St. Luke's site given that between those two options, St. Luke's offered fewer adverse environmental impacts and was already heal by MVHS.
    b. **Financial feasibility study.** In September 2015, MVHS announced it chose Downtown, but retained St. Luke's as an alternative if Downtown proved financial infeasible.[7] However the study that determined feasibility is not included in the site selection analysis.
    c. **Boilermaker traffic data not included.** The annual Boilermaker Road Race culminates just blocks away from the proposed hospital site. Parking and traffic demands peak, consuming every available parking spot between Genesee Street and the Brewery District. Before making any determinations, additional studies should be performed to assess and understand the impacts the hospital project could have on parking and transportation during the construction and operation phases.

[6] https://spectrumlocalnews.com/nys/central-ny/news/2018/03/01/new-utica-hospital-could-mean-changes-for-utica-police-department
[7] https://www.uticaod.com/news/20160403/decision-made-new-hospital-to-be-built-in-downtown-utica

Photos from the 2017 Boilermaker: Columbia looking west

State Street looking north.^ Columbia Street looking east. ∨

d. **Discussion of the Burstone Microgrid.** The St. Luke's Campus is powered and heated by a natural gas cogeneration plant.[8] "The microgrid reduces greenhouse gas emissions by 4,000 tons annually, provides power stability, reduces demand on the local utility, and saves hundreds of thousands of dollars annually in utility costs."

3. Unsubstantiated claims.
    a. "The magnitude of the acquisition of 25± acres will be large, but most of the impacts are expected to be beneficial because it will better position the hospital to serve the largest and most diverse population in Oneida County, as well as creating the potential for secondary economic development opportunities." Page 7, Project Description, under "Property Acquisition" (PDF page 24.)
        i. This section makes several speculative claims about unspecified economic development in unspecified locations. What kind of development, where?
        ii. The site selection study awarded points to downtown for not being near a residential area, but now claims to be better positioned to serve the local population. These contradictory claims need to be sorted out or omitted.
    b. "Consideration was also given to additional investment potential based on the site location and the project's relation to broader downtown revitalization, neighborhood revitalization, and/or preservation features. These same interests could also result in increased fundraising for the project (in addition to the State-designated allotment of $300 million)." (PDF page 47.)
        i. There is no evidence that fundraising has increased because of the location.
        ii. Creating additional burdens on the public, especially to preserve the financial feasibility of this action, should not be characterized as incentives or benefits.
    c. "Based on a review of available information, all three sites are consistent with a master plan and only the Downtown and NYS Psych Center sites are near proposed BOAs."
        i. Utica Master Plan calls for development goals quite at odds with the design, requirements, and impacts of the hospital as proposed for downtown Utica.
        ii. Only the Psych Center achieves Utica Master Plan and Smart Growth principles. (See Smart Growth Matrix below.)
    d. "The next sub-criterion examined the location of each site in relation to the surrounding neighborhood. The Downtown site was identified as the only site not situated near a residential neighborhood, whereas St. Luke's and the NYS Psych Center sites are located near neighborhoods, although creation of a buffer is possible." (Page 48)
        i. Downtown is near three apartment complexes and is the only site that currently contains residential space.
    e. "The final sub-criterion examined sustainability features as it relates to the ability to provide an energy microgrid and if it can be considered an urban infill project

[8] https://www.powerbycogen.com/case-studies/burrstone-energy-center-chp-microgrid/

(vs. greenfield development). The Central Utility Building at the Downtown and NYS Psych Center sites have the potential to serve as microgrid power sources. CHP's are considered a more sustainable option for generating electric power versus relying 100% on the electrical grid. CHP's are more energy efficient and rely on cleaner sources (i.e., gas turbines) reducing emissions of carbon dioxide and other air pollutants in comparison to regional power stations." (Page 48)

   i. The Burrstone Microgrid is already built and operating the St. Luke's site and is providing clean energy to the campus as well as Utica College.
   ii. There is an additional, related unsubstantiated claim here: "Thirdly, a new, consolidated site will enable MVHS to reduce infrastructure and energy cost/consumption for decades to come."

f. "While all three site options would likely comply with the State's Smart Growth Development Policy, the Downtown and NYS Psych Center sites would be viewed more favorably if state funds are pursued to assist with the development of either of these urban sites." (Page 48)
   i. Downtown site promotes sprawl by 1) Reducing Density 2) Increasing reliance on cars 3) Not pedestrian and bike friendly in design 4) Does not promote historic preservation and reuse.[9]

Analysis.

1. The Site Selection Matrix.
   a. **Mathematical Errors** –The matrix using weighing to balance the results. However the wrong denominator was used in some cases. Additionally, scores were added after being rounded. By adding and then rounded, the results are more accurate. (See the revised matrix below.)
   b. **Observational Errors** –In several cases, points were awarded contrary to reality. Adjustments are made to reflect observational truth. (See revised matrix below.)
   c. **Omissions** –Evaluations should have been conducted on a wide range of issues, especially as related to healthcare, public finances, Smart Growth, community plans, and project objectives. However, as stated in emails since, the project was guided from the beginning toward the outcome of steering the hospital toward the downtown location.
      i. Despite not having public support (see attached polling results), there is an expectation that condemning authorities will be successful in executing eminent domain action to fully assemble the downtown site. Proving that the downtown site is in the public interest will require a full analysis.
      ii. A Smart Growth analysis of the sites is added below to show how poorly the downtown site stands up outside the narrow set of parameter measured by EDGE.

[9] See http://www.dec.ny.gov/lands/45970.html for even more.

| | Mathematically Revised Site Selection Matrix | Downtown | Psych Center | St. Luke's |
|---|---|---|---|---|
| I. SIZE | Total Potential Points - 6 Points | | | |
| A. Urban | 1) Urban - between 10 and 20 acres (2 points) | | | |
| | 2) Urban - between 20 and 30 acres (4 points) | 4 | | |
| | 3) Urban - greater than 30 acres (6 points) | | 6 | |
| B. Suburban (within 5 miles of City Center) | 1) Suburban - between 20 and 30 acres (2 points) | | | |
| | 2) Suburban - between 30 and 40 acres (4 points) | | | 4 |
| | 3) Suburban - greater than 40 acres (6 points) | | | |
| SUBTOTAL: | | 4 | 6 | 4 |
| WEIGHTED SUBTOTAL: | Weight (10/6) = 1.67 | **6.667** | **10** | **6.667** |
| | | | | |
| | | | | |
| II. UTILITIES | Total Potential Points - 30 Points | | | |
| A. Sanitary Sewer | 1) Capacity improvements require less than 500 linear feet of upgrades (4 points) | | 4 | 4 |
| | 2) Capacity improvements require between 500 and 1000 linear feet of upgrades (2 points) | 2 | | |
| | 3) Capacity improvements require more than 1000 linear feet of upgrades (0 points) | | | |
| B. Potable Water | 1) Capacity improvements require less than 500 linear feet of upgrades (4 points) | 4 | 4 | 4 |
| | 2) Capacity improvements require between 500 and 1000 linear feet of upgrades (2 points) | | | |
| | 3) Capacity improvements require more than 1000 linear feet of upgrades (0 points) | | | |
| | 4) Redundancy: 2 main feeds from different reservoirs/tanks + 2; 2 main feed from same source +1 points | 2 | 2 | 2 |
| | 5) Potential useful life or pressure issues ( minus 1 to -2 points) | -1 | -1 | |
| C. Electrical | 1)Adequate Capacity: Currently available +2 points; need National Grid upgrade + 1 point | 2 | 1 | 1 |
| | 2) Redundancy: 3 independent sources +2 points; 2 sources + 1 points | 1 | 1 | 1 |
| | 3) Reliability: reliable dedicated feeder +2 points; reliable shared feeder +1 points | 2 | 1 | 1 |
| | 4) Service voltage: 115Kv +2 points; 34.5 Kv +1 points; | 2 | 0 | 1 |
| D. Natural Gas | 1) Capacity: supports hospital w/ future CHP +4 points; supports hospital only +2 points | 4 | 4 | 4 |
| | 2) Upgrades: services extensions >500 feet minus 2 points; >1000 feet -4 points | | | |
| E. Fiber Network Availability | 1) Yes (2 points) | 2 | 2 | 2 |
| F. Storm Drainage | 1) Separate storm sewers onsite (+2 points) | | 2 | 2 |
| | 2) Soils and depth to water table conducive to green infrastructure (+2 points) | | 2 | 2 |
| | 3) Property available for onsite detention (+2 points) | | 2 | 2 |
| SUBTOTAL: | | 20 | 24 | 26 |
| WEIGHTED SUBTOTAL: | Weight (10/30) = .3 | **6.667** | **8** | **8.667** |
| | | | | |
| III. ACCESSIBILITY | Total Potential Points - 22 Points | | | |
| A. Major Roads | 1) Between 0 and 0.5 miles from N-S Arterial including 840 section (+4 points) | 4 | | 4 |
| | 2) Between 0 and 1.0 miles from N-S Arterial including 840 section (+2 points) | | 2 | |
| | 3) Between 0 and 0.5 miles from Oriskany Street/5A/5S (+2 points) | 2 | 2 | |
| B. NYS THRUWAY | 1) Between 0 and 1 mile (4 points) | | | |

| | | | | |
|---|---|---|---|---|
| | 2) Between 1 and 2 miles (3 points) | 3 | | |
| | 3) Between 2 and 3 miles (2 points) | | 2 | |
| | 4) Between 3 and 4 miles (1 points) | | | 1 |
| C. Road and Signal Improvements | 1) -1 for each 1000 ft length of road improvement and -1 for each signal improvement | | -3 | -1 |
| D. Public Transit | 1) Yes (4 points) | 4 | 4 | 4 |
| E. Flight Services (helicopter) | 1) Allowed and no flight path restrictions (+2) | 2 | 2 | 2 |
| F. Visibility | Can be seen from a NYS Route or Interstate (+ 2 points) | 2 | | |
| G. Distance to Employee Base center (approximate centroid of Utica, Whitesboro, New Harford, and Clinton) | 1) Between 0 and 2 mile (4 points) | | | 4 |
| | 2) Between 2 and 4 miles (2 points) | 2 | 2 | |
| | 3) > 4 mile (2 points) | | | |
| SUBTOTAL: | | 19 | 11 | 14 |
| WEIGHTED SUBTOTAL: | Weight (10/22) = .455 | **8.636** | **5** | **6.364** |
| | | | | |
| IV. ZONING APPROVALS AND IMPACT FEES | Total Potential Points - 6 Points | | | |
| A. Basic Zoning | 1) Allowed use, lot coverage, and building height (+1 to +3 points) | 3 | 1 | 3 |
| B. Sewer Offset Requirements | 1) No (3 points) | | | |
| | 2) No - Utica and north system may be subject to 2 to 1 offsets starting 2017 (2 points) | 2 | 2 | 2 |
| | 3) Yes - Sauquoit Creek Pump Station is subject to 5 to 1 offsets (0 points) | | | |
| SUBTOTAL: | | 5 | 3 | 5 |
| WEIGHTED SUBTOTAL: | Weight (10/6) = 1.67 | **8.333** | **5** | **8.333** |
| | | | | |
| V. MONETARY FACTORS | Total Potential Points - 20 Points | | | |
| A. Site Assemblage | 1) Property acquisition involves multiple parcels (0 points) | 0 | | |
| | 2) Property acquisition involves one primary owner (2 points) | | 2 | |
| | 3) Property currently under Owner's control (4 points) | | | 4 |
| B. Attract Additional Outside Investment | 1) Based on Downtown Revitalization (+ 4 points) | 4 | | |
| | 2) Based on other factors - neighborhood revitalization; preservation features (+2) | | 2 | |
| C. Cost of Construction - Phasing | 1) Must maintain access and protect existing facilities during construction (0 points) | | | 0 |
| | 2) Off-site construction with immediately adjacent buildings (2 points) | 2 | | |
| | 3) Off-site construction with wide construction zone (4 points) | | 4 | |
| C. Cost of Construction - Foundations | 1) Soft soils and/or high water table (0 points) | | | |
| | 2) Harder soils (2 points) | | 2 | 2 |
| D. Cost of Construction - Demolition | 1) No demolition (4 points) | | | |
| | 2) Demolition of <2 acres needed (2 points) | | | |
| | 3) Demolition of >2 acres needed (0 points) | | | |
| E. Nearby public parking | Ability to utilize public parking facilities (+ 2) | 2 | | |
| F. Sauquoit Creek PS Basin Surcharges | No (+ 2) | 2 | 2 | 2 |
| SUBTOTAL: | | 10 | 12 | 8 |
| WEIGHTED SUBTOTAL: | Weight (10/20) = .5 | **4.167** | **5** | **3.333** |
| | | | | |
| VI. COMMUNITY FACTORS, PERCEPTION & SUSTAINABILITY | Total Potential Points - 16 Points | | | |
| A. Community Priority Site/Area | 1) Consistent with Master Plan (+4 points) | 4 | 4 | 4 |
| | 2) Within or adjacent to proposed/existing Brownfield Opportunity Area (+2 points) | 2 | 2 | |
| B. Proximity to Existing Neighborhood | 1) Not within residential neighborhood (4 points) | 4 | | |
| | 2) Within neighborhood but buffer zone is possible (2 points) | | 2 | 2 |

| | | | | |
|---|---|---|---|---|
| | 3) Within neighborhood and no buffer zone (0 points) | | | |
| C. Sustainability and Resiliency Features | 1) Potential Microgrid opportunity (+2 points) | 2 | | |
| | 2) Smart Growth - represents retrofitting/urban infill project (+4 points) | 4 | 4 | |
| SUBTOTAL: | | 16 | 12 | 6 |
| WEIGHTED SUBTOTAL: | Weight (10/16) = .625 | **10** | **7.5** | **3.75** |
| | | | | |
| VII. ENVIRONMENTAL | Total Potential Points - 8 Points | | | |
| A. 100-year Floodplain | 1) Project site/footprint is not located within 100-year floodplain (2 points) | 2 | 2 | 2 |
| B. Cultural Resources | 1) Project is not located on a site listed or eligible for listing on the SR/NR (1 point) | | | 1 |
| | 2) Project is not located within an archaeologically sensitive area (1 point) | | | 1 |
| C. Wetlands | 1) Project does not encroach upon potential federal wetlands (based on NWI or delineation) (1 point) | 1 | 1 | |
| | 2) Project does not encroach upon State wetlands or buffer (1 point) | 1 | 1 | 1 |
| D. Steep Slopes | 1) No slopes >15% (1 point) | 1 | 1 | 1 |
| E. Endangered & Threatened Species | 1) No tree clearing restrictions due to Indiana Bat/Northern Long-eared Bat (1 points) | 1 | 1 | 1 |
| SUBTOTAL: | | 6 | 6 | 7 |
| WEIGHTED SUBTOTAL: | | **7.5** | **7.5** | **8.75** |
| | | | | |
| TOTAL WEIGHTED SCORE: | | **51.97** | **48.00** | **45.86** |
| | Rounded | **52** | **48** | **46** |

| | Observationally Revised Site Selection Matrix | Downtown | Psych Center | St. Luke's | |
|---|---|---|---|---|---|
| I. SIZE | Total Potential Points - 6 Points | | | | |
| A. Urban | 1) Urban - between 10 and 20 acres (2 points) | | | | |
| | 2) Urban - between 20 and 30 acres (4 points) | 4 | | | |
| | 3) Urban - greater than 30 acres (6 points) | | 6 | | |
| B. Suburban (within 5 miles of City Center) | 1) Suburban - between 20 and 30 acres (2 points) | | | | |
| | 2) Suburban - between 30 and 40 acres (4 points) | | | 4 | |
| | 3) Suburban - greater than 40 acres (6 points) | | | | |
| SUBTOTAL: | | 4 | 6 | 4 | |
| WEIGHTED SUBTOTAL: | Weight (10/6) = 1.67 | **6.667** | **10** | **6.667** | No Change |
| | | | | | |
| | | | | | |
| II. UTILITIES | Total Potential Points - 30 Points | | | | |
| A. Sanitary Sewer | 1) Capacity improvements require less than 500 linear feet of upgrades (4 points) | | 4 | 4 | |
| | 2) Capacity improvements require between 500 and 1000 linear feet of upgrades (2 points) | 2 | | | |
| | 3) Capacity improvements require more than 1000 linear feet of upgrades (0 points) | | | | |
| B. Potable Water | 1) Capacity improvements require less than 500 linear feet of upgrades (4 points) | 4 | 4 | 4 | |
| | 2) Capacity improvements require between 500 and 1000 linear feet of upgrades (2 points) | | | | |
| | 3) Capacity improvements require more than 1000 linear feet of upgrades (0 points) | | | | |
| | 4) Redundancy: 2 main feeds from different reservoirs/tanks + 2; 2 main feed from same source +1 points | 2 | 2 | 2 | |
| | 5) Potential useful life or pressure issues ( minus 1 to -2 points) | -1 | -1 | | |
| C. Electrical | 1)Adequate Capacity: Currently available +2 points; need National Grid upgrade + 1 point | 2 | 1 | 2 | St. Luke's operating a hospital, thus currently available. |
| | 2) Redundancy: 3 independent sources +2 points; 2 sources + 1 points | 1 | 1 | 1 | |
| | 3) Reliability: reliable dedicated feeder +2 points; reliable shared feeder +1 points | 2 | 1 | 2 | St. Luke's has 2 shared feeders |
| | 4) Service voltage: 115Kv +2 points; 34.5 Kv +1 points; | 2 | 0 | 1 | |
| D. Natural Gas | 1) Capacity: supports hospital w/ future CHP +4 points; supports hospital only +2 points | 4 | 4 | 4 | |
| | 2) Upgrades: services extensions >500 feet minus 2 points; >1000 feet -4 points | | | | |
| E. Fiber Network Availability | 1) Yes (2 points) | 2 | 2 | 2 | |
| F. Storm Drainage | 1) Separate storm sewers onsite (+2 points) | | 2 | 2 | |
| | 2) Soils and depth to water table conducive to green infrastructure (+2 points) | | 2 | 2 | |
| | 3) Property available for onsite detention (+2 points) | | 2 | 2 | |
| SUBTOTAL: | | 20 | 24 | 28 | |
| WEIGHTED SUBTOTAL: | Weight (10/30) = .3 | **6.25** | **7.5** | **8.75** | |
| | | | | | |
| III. ACCESSIBILITY | Total Potential Points - 22 Points | | | | |
| A. Major Roads | 1) Between 0 and 0.5 miles from N-S Arterial including 840 section (+4 points) | 4 | | 4 | |
| | 2) Between 0 and 1.0 miles from N-S Arterial including 840 section (+2 points) | | 2 | | |
| | 3) Between 0 and 0.5 miles from Oriskany Street/5A/5S (+2 points) | 2 | 2 | | |

| | | | | | |
|---|---|---|---|---|---|
| B. NYS THRUWAY | 1) Between 0 and 1 mile (4 points) | | | | |
| | 2) Between 1 and 2 miles (3 points) | 3 | | | |
| | 3) Between 2 and 3 miles (2 points) | | 2 | | |
| | 4) Between 3 and 4 miles (1 points) | | | 1 | |
| C. Road and Signal Improvements | 1) -1 for each 1000 ft length of road improvement and -1 for each signal improvement | | -3 | -1 | |
| D. Public Transit | 1) Yes (4 points) | 4 | 4 | 4 | |
| E. Flight Services (helicopter) | 1) Allowed and no flight path restrictions (+2) | 2 | 2 | 2 | |
| F. Visibility | Can be seen from a NYS Route or Interstate (+ 2 points) | 2 | 2 | 2 | All three sites can be seen from the NYS 12/8/5 |
| G. Distance to Employee Base center (approximate centroid of Utica, Whitesboro, New Harford, and Clinton) | 1) Between 0 and 2 mile (4 points) | | | 4 | |
| | 2) Between 2 and 4 miles (2 points) | 2 | 2 | | |
| | 3) > 4 mile (2 points) | | | | |
| SUBTOTAL: | | 19 | 13 | 16 | |
| WEIGHTED SUBTOTAL: | Weight (10/22) = .455 | **8.636** | **5.909** | **7.273** | |
| | | | | | |
| IV. ZONING APPROVALS AND IMPACT FEES | Total Potential Points - 6 Points | | | | |
| A. Basic Zoning | 1) Allowed use, lot coverage, and building height (+1 to +3 points) | 3 | 1 | 3 | |
| B. Sewer Offset Requirements | 1) No (3 points) | | | | |
| | 2) No - Utica and north system may be subject to 2 to 1 offsets starting 2017 (2 points) | 2 | 2 | 2 | |
| | 3) Yes - Sauquoit Creek Pump Station is subject to 5 to 1 offsets (0 points) | | | | |
| SUBTOTAL: | | 5 | 3 | 5 | |
| WEIGHTED SUBTOTAL: | Weight (10/6) = 1.67 | **8.333** | **5** | **8.333** | |
| | | | | | |
| V. MONETARY FACTORS | Total Potential Points - 20 Points | | | | |
| A. Site Assemblage | 1) Property acquistion involves multiple parcels (0 points) | 0 | | | |
| | 2) Property acquistion involves one primary owner (2 points) | | 2 | | |
| | 3) Property currently under Owner's control (4 points) | | | 4 | |
| B. Attract Additional Outside Investment | 1) Based on Downtown Revitalization (+ 4 points) | 4 | | | So far all represent additional public costs |
| | 2) Based on other factors - neighborhood revitalization; preservation features (+2) | | 2 | | |
| C. Cost of Construction - Phasing | 1) Must maintain access and protect existing facilities during construction (0 points) | | | 0 | |
| | 2) Off-site construction with immediately adjacent buildings (2 points) | 2 | | | |
| | 3) Off-site construction with wide construction zone (4 points) | | 4 | | |
| C. Cost of Construction - Foundations | 1) Soft soils and/or high water table (0 points) | | | | |
| | 2) Harder soils (2 points) | | 2 | 2 | |
| D. Cost of Construction - Demolition | 1) No demolition (4 points) | | 4 | | Virtually no demolition required at Psych Center |
| | 2) Demolition of <2 acres needed (2 points) | | | | |
| | 3) Demolition of >2 acres needed (0 points) | | | | |
| E. Nearby public parking | Ability to utilize public parking facilities (+ 2) | 2 | | | This is an additional public cost |

| | | | | | |
|---|---|---|---|---|---|
| F. Sauquoit Creek PS Basin Surcharges | No (+ 2) | 2 | 2 | 2 | |
| SUBTOTAL: | | 10 | 16 | 8 | |
| WEIGHTED SUBTOTAL: | Weight (10/20) = .5 | 4.167 | 6.667 | 3.333 | |
| | | | | | |
| VI. COMMUNITY FACTORS, PERCEPTION & SUSTAINABILITY | Total Potential Points - 16 Points | | | | |
| A. Community Priority Site/Area | 1) Consistent with Master Plan (+4 points) | | 4 | 4 | Downtown is not consistent with Master Plan |
| | 2) Within or adjacent to proposed/existing Brownfield Opportunity Area (+2 points) | 2 | 2 | | |
| B. Proximity to Existing Neighborhood | 1) Not within residential neighborhood (4 points) | | | | Downtown is the only site that displaces existing residences, is next to or near three apartment complexes |
| | 2) Within neighborhood but buffer zone is possible (2 points) | 2 | 2 | 2 | |
| | 3) Within neighborhood and no buffer zone (0 points) | | | | |
| C. Sustainability and Resiliency Features | 1) Potential Microgrid opportunity (+2 points) | 2 | | 2 | St. Lukes already has a microgrid |
| | 2) Smart Growth - represents retrofitting/urban infill project (+4 points) | | 4 | | Downtown generally violates Smart Growth principles |
| SUBTOTAL: | | 6 | 12 | 8 | |
| WEIGHTED SUBTOTAL: | Weight (10/16) = .625 | 3.75 | 7.5 | 5 | |
| | | | | | |
| VII. ENVIRONMENTAL | Total Potential Points - 8 Points | | | | |
| A. 100-year Floodplain | 1) Project site/footprint is not located within 100-year floodplain (2 points) | 2 | 2 | 2 | |
| B. Cultural Resources | 1) Project is not located on a site listed or eligible for listing on the SR/NR (1 point) | | | 1 | |
| | 2) Project is not located within an archaeologically sensitive area (1 point) | | | 1 | |
| C. Wetlands | 1) Project does not encroach upon potential federal wetlands (based on NWI or delineation) (1 point) | 1 | 1 | | |
| | 2) Project does not encroach upon State wetlands or buffer (1 point) | 1 | 1 | 1 | |
| D. Steep Slopes | 1) No slopes >15% (1 point) | 1 | 1 | 1 | |
| E. Endangered & Threatened Species | 1) No tree clearing restrictions due to Indiana Bat/Northern Long-eared Bat (1 points) | 1 | 1 | 1 | |
| SUBTOTAL: | | 6 | 6 | 7 | |
| WEIGHTED SUBTOTAL: | | 7.5 | 7.5 | 8.75 | |
| | | | | | |
| TOTAL WEIGHTED SCORE: | | 45.30 | 50.08 | 48.11 | |
| | Rounded | 45 | 50 | 48 | |

| | Smart Growth Evaluation<br>http://www.dec.ny.gov/lands/45970.html | Downtown | Psych Center | St. Luke's |
|---|---|---|---|---|
| VIII. SMART GROWTH | Total Potential Points - 36 Points | | | |
| A. Foster strong, sustainable businesses in community centers | 1) Compact, conservation-oriented development (2 points) | | 2 | 2 |
| | 2) Vacant property re-use (2 points) | | 2 | |
| B. Preserve open space, forests, farmland, natural beauty, and critical environmental areas | 1) Development targeted toward existing infrastructure (2 points) | 2 | 2 | 2 |
| | 2) Strategic farmland and open space preservation (2 points) | 2 | 2 | |
| | 3) Brownfield re-development (2 points) | 2 | 2 | |
| C. Strengthen and direct development towards existing communities | 1) Yes 2 points, No 0 points, Destroys -2 points | -2 | 2 | |
| D. Foster distinctive, attractive communities with a strong sense of place | 1) Yes 2 points, No 0 points, Destroys -2 points | -2 | 2 | |
| E. Create walkable neighborhoods | 1) Transit-oriented development (2 Points) | 2 | | |
| | 2) Build compact pedestrian- and bicycle- friendly community design (2 Points) | | 2 | |
| | 3) Encourages street level and neighborhood activity 2 point, destroys -2 | -2 | 2 | |
| F. Take advantage of green building design | 1) use innovative approaches 1 point, proper building placement 1 point, and local materials | | | 1 |
| G. Create a range of housing opportunities and choices | 1) build quality housing for people of all income levels with access to jobs, culture and open space | | | |
| H. Encourage community and stakeholder collaboration in development decisions | 1) work together to find creative solutions, increase community understanding and invest in shared spaces | | | |
| I. Mix land uses | 1) Creates mixed land uses 2 points, destroys -2 points | -2 | 2 | |
| J. Make development decisions predictable, fair and cost effective | 1) Incremental--provides natural neighborhood progression (2 points) | | 2 | 2 |
| | 2) Cost Effective-- For MVHS 1 point, For Taxpayers 1 point | | 2 | 1 |
| K. Provide a variety of transportation choices | 1) Encourages multi-model transportation (2 Points) | 2 | 2 | |
| L. Foster long term comprehensive planning | 1) plan to reach local, regional and state goals, to target investment | 2 | 2 | |
| SUBTOTAL: | | 4 | 28 | 8 |
| WEIGHTED SUBTOTAL: | Weight (10/36) = .27 | 1.11 | 7.77 | 2.22 |
| | Rounded | 1 | 8 | 2 |

| | Downtown | Psych Center | St. Luke's |
|---|---|---|---|
| Raw Revised Total | 46.41 | 57.85 | 50.33 |
| Rounded Revised Total | 46 | 58 | 50 |

Polling related to the proposed downtown hospital

**Survey Results**

**Polling Conducted by RoboCent, Inc.**

**Authorized by the Main Street Patriots**

Survey conducted on November 1st, 2017 between 7:15PM EST and 7:50PM EST.

636 registered voters in Utica, New York participated in an automated survey using landline numbers. Margin of error +/- 3.81%.

An automated survey uses VOIP technology to dial landline phone numbers over the internet to playback prerecorded messages. The participant's responses are recorded via the phones keypad.

November 1st, 2017

Survey Results

| | | |
|---|---|---|
| Live Answers | 2,431 | 27.84% |
| Participants (among live answers) | 636 | 26.16% |
| Voicemail Answers | 3,526 | 40.38% |
| Total Dials | 8,733 | |

**Question 1: "Which location do you support for the area's new hospital?"**

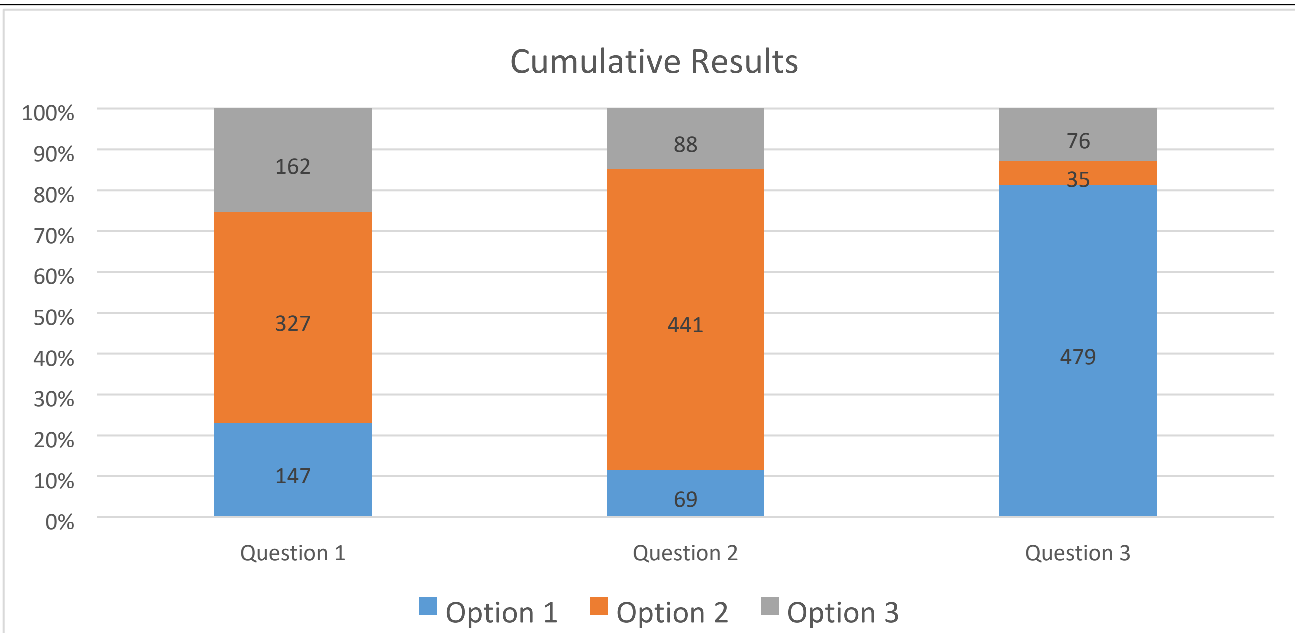
| | | |
|---|---|---|
| (1) Downtown Site | 147 | 23.11% |
| (2) St. Lukes Campus | 327 | 51.42% |
| (3) Undecided | 162 | 25.47% |
| Total: | 636 | |

**Question 2: "Do you support the mayor and Five Common Council Members giving themselves a 4year Term-Limit Extension, raising the 8-year Limit enacted by the People to a 12-year Limit as decided by themselves?"**

| | | |
|---|---|---|
| (1) Yes (Support) | 69 | 11.54% |
| (2) No (Oppose) | 441 | 73.75% |
| (3) Undecided | 88 | 14.72% |
| Total: | 598 | |

**Question 3: "Do you plan on voting in this election on Tuesday, November 7th?"**

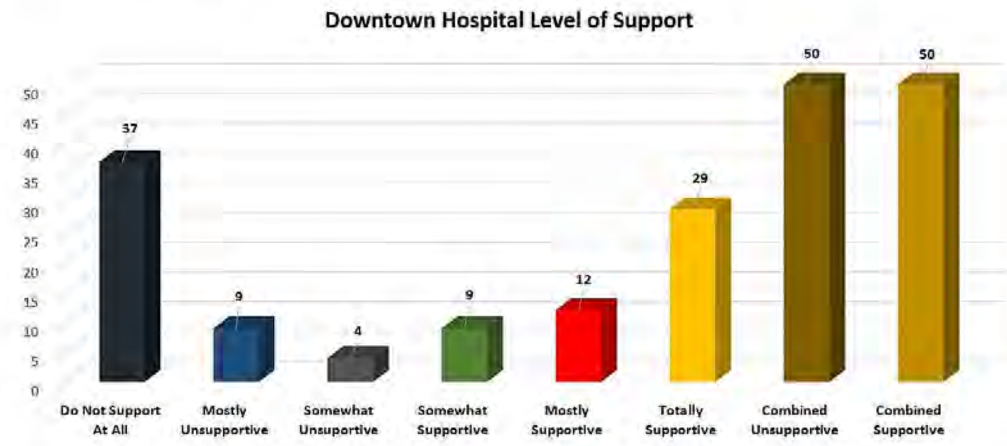
| | | |
|---|---|---|
| (1) Yes | 479 | 81.19% |
| (2) No | 35 | 5.93% |
| (3) Undecided | 76 | 12.88% |
| Total: | 590 | |



Zogby Polling:

Sample Characteristics

## What is your level of support for the new hospital located in downtown Utica?




# Methodology

John Zogby has been a recognized pioneer in the polling industry for four decades. What were perceived at first as John Zogby's innovations in the 1980s have since become standard practices among pollsters. For example, Zogby rejected the practice of "random digit dialing" as a costly waste of time and instead often relied on using listed telephone numbers. He also was among the first pollsters to not rely on making phone calls exclusively during the dinner hour, arguing that many more Americans were working different time shifts and for a myriad of reasons were consistently not at home at the dinner hour or other times in the evenings.

Following a long string of successful, high profile projections in the 1980s and 1990s, Zogby suggested in an interview with *Public Opinion* in 1997 that pollsters would soon need to move away from the telephone as a useful tool in survey research. Always one to capture demographic and social changes, Zogby argued the future would be dominated by internet/online polling, which he and his company began to develop in 1998 – far in advance of other mainstream polling companies.

By 2008, Zogby was experimenting with "mobile to web" applications in polling conducted overseas. "It used to be that we had to conduct polls live, face-to-face, on the ground in many nations. The expansion of the mobile phone has allowed us to go directly to almost all adults and obtain results in days, as opposed to weeks and months", Zogby said. He has maintained his record of accuracy with each new development.

The WIBX Poll utilizes yet another new technique – a combination of internet/social media invitations, accompanied by radio broadcast invitations. The WIBX Poll cannot be considered "scientific" in the tradition sense of the word. A truly scientific poll of public opinion involves random probability sampling which means that in reaching out to individuals, everyone must have the same chance to be selected as everyone else. By using a broad spectrum of invitations to those listeners of WIBX and its sister Townsquare Media stations, viewers of their websites, and resulting consumers of social media, the respondents were self-selected . Nonetheless, the pure sample of respondents is representative of the demographics of the station's Area of Dominant Influence (ADI) and slight weights were applied to some demographics to ensure an even closer representation of the region's population.

Weights were applied to party and county based on active voter rolls from New York State enrollment. Additional weights were applied to age based on population with reduction in under-40 age and to race based on nonwhite voter population estimates in off-year elections.

John Zogby Strategies is pleased to announce that this is the first time we've polled using Tribal Analytics on regional political issues. As a result, we'll have greater insight into the hot button issues. We're also pleased with the methodology and will further refine its processes – as the Zogby Companies have always done on each of their innovative methodologies.

Source: http://wibx950.com/wibxzogby-survey-results-are-in/

NYSDEC

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**

**Division of Environmental Permits, Region 6**
207 Genesee Street, Utica, NY 13501-2885
P: (315)793-2554 F: (315) 793-2748
www.dec.ny.gov

December 27, 2018

Brian Thomas, Commissioner
City of Utica Planning Board
1 Kennedy Plaza
Utica, New York 13502

RE: DEIS - Mohawk Valley Health System Integrated Health Campus

Dear Commissioner Thomas,

We offer the following in response to the draft scope document received May 25, 2018.

- DEC is not listed as a potential agency under "Water and Wastewater System Improvements Approval of Plans" item 17, page 15 of the document. Please note that DEC approval of new or modified municipal sanitary sewers serving the proposed project may be required under 6 NYCRR Part 750-2.10(a). If a sanitary sewer lateral serving the proposed project is designed to convey 2,500 gallons per day or more, then DEC approval of the connection may be required under 6 NYCRR Part 750-1.2(82) and 6 NYCRR Part 750-2.10(h)(3)(i). Therefore, it is recommended that DEC be included as an agency in Table1, Potential Permits and Approvals, under Water and Wastewater System Improvements Approval of Plans.

- Dependent on final plans, permitting and/or registration may be required for:
  - Air
  - Article 15/24* (Excavation Fill, Stream Disturbance, Freshwater Wetlands, Water Quality)
  - Chemical Bulk Storage
  - Petroleum Bulk Storage
  - SPDES Construction Storm Water
  - Water Withdrawal

*dependent on final location of new transmission, water, sewer connections, if any.

If you have questions about these comments, please contact me at (315) 793-2746.

Sincerely,

Terry Tyoe

Terry Tyoe
Environmental Analyst 2
NYS DEC Utica

ecc: T. Voss, Regional Permit Administrator, Watertown

Truett

THE WEST FIRM
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December 27, 2018

***VIA HAND DELIVERY***
***& FIRST CLASS MAIL***

City of Utica Planning Board
c/o Department of Urban & Economic Development
1 Kennedy Plaza
Utica, New York 13502

**RE: Comments on Draft Environmental Impact Statement ("DEIS"), dated November 2018, on Integrated Health Campus ("IHC") Proposed by Mohawk Valley Health System ("MVHS" or "Applicant")**

Dear City of Utica Planning Board:

On behalf of our clients, Mr. Brett Truett and #NoHospitalDowntown, we submit the following comments on the DEIS provided by MVHS in support of its proposal to demolish culturally significant resources in downtown Utica in order to make way for the IHC.[1] As an environmental practitioner with more than four decades of experience under the State Environmental Quality Review Act ("SEQRA"), it is appalling to see how far the Applicant and its supporters have gone to subvert the purpose and intent of SEQRA. As a result, the SEQRA process is incomplete and procedurally and substantively defective. Under these circumstances, the SEQRA process should be reopened to correct these blatant defects.

Per the DEIS, the IHC is proposed to be located on 25 acres in the City of Utica's Gateway Historic Canal District (the "Downtown Site" or "Project Area"). The proposed Project Area currently consists of over 80 individual properties (including businesses, community land and residences) and will result in the broad-scale displacement or destruction of 40 existing businesses and five not-for-profit organizations/facilities, as well as destruction of a host of historically significant buildings and the character of the Columbia-Lafayette neighborhood as a whole. The intrusion of the proposed nine-story, 165-foot medical institutional building (and associated uses and alterations on the Downtown Site) will stand out as a sore thumb, in marked conflict to the vision espoused for this area in the City's Master Plan and as reflected in regulations pertinent to the City's Historic Districts. Beyond that the DEIS's evaluation of this proposal fails to adequately account for the project's adverse impacts, the significant unavoidable, unmitigable adverse impacts that the DEIS actually does acknowledges could be readily avoided by selecting an alternative location, namely, the St. Luke Campus (which is owned by the Applicant).

[1] This letter supplements Mr. Truett's personal comments.

With all due respect, for the reasons detailed below, we maintain that the City of Utica Planning Board ("Board"), as lead agency under Article 8 of the Environmental Conservation Law ("ECL") and its implementing regulations, 6 NYCRR Part 617, (collectively, "SEQRA"), has engaged in a defective, incomplete and inadequate environmental review process, as to both timing and substance, thereby rendering the DEIS fatally defective.

## A. Timing Deficiencies Regarding Public Review of and Comment on the DEIS

As reflected in the attached petitions requesting an extension of the public comment period (Exhibit A), as well as in comments from the Landmarks Society of Greater Utica, dated December 27, 2018 (Exhibit B), the Board has afforded the public, in effect, the bare minimum of notice and opportunity for comment on what is a massive, complex project with far-reaching, significant adverse environmental implications. *See, e.g.,* 6 NYCRR 617.9(a)(3), (a)(4)(iii). The Board has allowed the public only 39 days to comment (i.e., from November 19th to December 27th) – and this includes two major public holidays, one on a Thursday (Thanksgiving), and the other on a Tuesday (Christmas). By virtue of the holidays, at least four days were effectively eliminated from the public comment period, leaving only a mere 35 days (at the most), with comments due two days after Christmas. The timeframe set forth by the Board, therefore, is nothing more than a transparent attempt to limit meaningful public input. This conclusion is further highlighted when one observes that the DEIS is a complex document that exceeds 3,500 pages. Accordingly, we maintain that the 35-day review period allowed by the Board is patently insufficient to allow for meaningful public participation in the SEQRA process.

Adding insult to injury, not only is the timeframe for review of the DEIS inadequate for the DEIS as it stands, in addition, the DEIS is incomplete, as certain of its appendices contain only summaries, not complete studies. *See, e.g.,* Appendix A (site selection executive summary). Although the DEIS states that "complete reports" are provided in appendices (*see* DEIS, p. xi), such is not the case. The Board's failure to have appended and made available to the public the entirety of supporting reports to the DEIS has likewise deprived the public of a meaningful opportunity to participate in this process.

Accordingly, the timeframe the Board has allotted for public review is inadequate to allow for meaningful public comment and must be extended. We request an extension of the public comment period by at least 60 days, and further request that the 60-day extension commence once all supporting documentation relative to the DEIS is made available to the public and the following procedural and substantive deficiencies have been corrected.

## B. Substantive Defects and Deficiencies in the DEIS

In the limited time allowed for public review, the following details our preliminary comments on the major substantive defects and deficiencies in the DEIS:

### 1. The DEIS is Incomplete and Fatally Defective as to Evaluation of Impacts to Historical/Archaeological Resources and Mitigation

Section 3.6 and Appendix E of the DEIS conclusively document that the DEIS is woefully incomplete and, indeed, fatally defective relative to evaluation of adverse impacts to historical and archaeological resources. The DEIS documents that, pursuant to article 14 of the New York State Parks, Recreation and Historic Preservation Law ("PRHPL"): (1) consultation with the New York State Office of Parks, Recreation and Historic Preservation (also known as the State Historic Preservation Office) ("SHPO") is in progress, but has not concluded; (2) more investigation is necessary (including subsurface testing); and (3) no letter of resolution has yet been obtained. *See generally,* DEIS, Section 3.6 and Appendix E (correspondence from SHPO, dated June 18, 2018, and July 17, 2018; correspondence from O'Brien & Gere, dated August 16, 2018). The DEIS also documents that the Applicant is attempting to bypass SEQRA's requirement that practicable avoidance and mitigation measures be evaluated in a *public* forum (subject to public scrutiny and opportunity for comment) *prior* to decision-making. *See* Appendix E, Letter from O'Brien & Gere, dated August 16, 2018.

More specifically, a Phase IA archaeological investigation was completed for the Project Area, resulting in a finding that the Downtown Site is sensitive for pre-contact archaeological sites and a variety of historic archaeological resources, including a historic site (442 Lafayette Street). A Phase IA architectural survey of existing buildings within the Downtown Site was also conducted, resulting in a finding of 49 architectural resources, including a portion of the Downtown Genesee Street Historic District (which is listed in the State and National Register of Historic Places), three contributing buildings to that historic district, and ten other buildings eligible for inclusion in the State and National Registers. *See generally,* DEIS Section 3.6 & Appendix E.

By letter dated June 18, 2018, SHPO informed the Applicant that a Phase II Site Examination would be required for the 442 Lafayette Street Historic Site, and Phase IB subsurface testing would be required on certain specified locations. By letter dated July 17, 2018, SHPO did three things: SHPO (1) reserved its right to comment further on archaeological issues upon completion of the required Phase II and Phase IB testing; (2) determined that, based on the planned demolition of at least two contributing buildings within the historic district and ten eligible historic resources, "the project as designed will have an Adverse Impact on historic resources;" and (3) directed an assessment of alternatives to avoid or lessen impacts regarding building demolition (e.g., save structures in place or move buildings for adaptive re-use). *See* Appendix E (SHPO Letter, dated June 18, 2018).

In response, rather than performing the SHPO-directed testing, or addressing SHPO's mitigation recommendations, or developing an avoidance/mitigation plan as part of the SEQRA process, the Applicant sought a letter of resolution from SHPO, requesting that mitigation measures be developed after-the-fact. Appendix E (O-Brien & Gere Letter, dated August 16, 2018); *see also* DEIS, Section 3.6.3. The DEIS hypothesizes as to what the so-called after-the-fact "mitigation" measures ultimately might be – for example, providing SHPO with photographs of the historically significant buildings to be demolished, performing archaeological testing at some future date after the SEQRA process has terminated, and coming to terms on undisclosed/yet-to-be determined "treatment measures" (i.e., to be developed after termination of the SEQRA process and after deciding to utilize the Downtown Site for this project). *See* DEIS, Section 3.6.3.

In support of this request, the Applicant cites the alleged inability to gain full Project Site access (i.e., because the Applicant does not own/control all of the affected properties) and the alleged need to achieve a balance between historic resource preservation and providing health care. DEIS, Appendix E (Letter from O'Brien & Gere, dated August 16, 2018). Of course, not a scintilla of legal authority supports the proposition that health care supersedes the procedural and substantive requirements of SEQRA; nor is there any legal support for the Applicant's intimation that health care concerns (even if they were valid here, which they are not) trump the State's long-settled policies, statutory directives and regulations directing agencies to, among other things, mitigate adverse impacts to listed and eligible historic properties to the fullest extent practicable. *See, e.g.,* PRHPL § 14.09(1), (2); 9 NYCRR Part 428.8.

The Applicant's attempt to bypass the heart of SEQRA – which mandates evaluation of impacts *and* mitigation in a public process *prior* to decision-making – is unlawful, both procedurally and substantively. Further, neither of the Applicant's asserted reasons for attempting to side-step SEQRA's impact/mitigation evaluation requirement has any merit.

First, SEQRA requires meaningful evaluation of environmental impacts and mitigation in the DEIS, *as part of the public review process*; and historical, archeological, architectural and aesthetic resources are expressly considered part of the environment and are protected under SEQRA. *See* ECL 8-0105(6), ECL 8-0109(1), (2), (8); 6 NYCRR 617.7(c)(1)(v); 6 NYCRR 617.9(b)(5)(iii), (iv); *see also Orchards Assocs. v. Planning Bd. of Town of N. Salem,* 114 A.D.2d 850 (2d Dep't 1985). Given that the DEIS, itself, acknowledges that it does not contain the data necessary for full evaluation of impacts to historic/archaeological resources and mitigation as to same, the DEIS is fatally defective on its face, both procedurally and substantively. Accordingly, due to this material inadequacy, the SEQRA process should be immediately suspended and a supplemental EIS required that complies with the full procedures of the governing Part 617 regulations. *See* 6 NYCRR 617.9(a)(7)(i) & (iii).

Second, the Applicant's rationale for seeking to bypass meaningful public evaluation of impacts to, and mitigation regarding, historical/archaeological resources is fundamentally flawed. Unavailing is the Applicant's assertion that it should get a free pass as to data collection necessary for impact assessment (i.e., the Phase II and Phase IB studies directed by SHPO) until after conclusion of the SEQRA process because of the alleged inability to obtain full site access now. The Applicant claims that it has the power of eminent domain. Assuming, without deciding if that is true, then the Applicant may avail itself of Eminent Domain Procedures Law § 404. Section 404 accords the condemnor the right of entry prior to acquisition (upon proper notice) in order to prepare studies necessary as a prerequisite to the condemnation process. In other words, the Applicant's site access excuse is utterly meritless. Moreover, to the extent the Applicant does not have eminent domain power, that merely highlights that its selection of the Downtown Site is fatally defective and that the Applicant should instead be pursuing the Applicant-owned St. Luke Campus (which has been found to be a feasible alternative site for the IHC). In other words, if the Applicant does not have the power to use Section 404 of the Eminent Domain Procedures Law, then the Downtown Site is fatally defective, because information cannot be gathered that is necessary to complete the SEQRA process.

### 2. The DEIS is Inadequate and Fatally Defective as to Evaluation of Cumulative Impacts (i.e., the Nexus Project and Re-Use of the St. Luke and St. Elizabeth Facilities/Campuses)

In two respects, the DEIS is also woefully inadequate relative to its evaluation of cumulative impacts – namely, (1) failure to include evaluation of impacts from the Nexus Project, and (2) failure to evaluate impacts from the planned alteration of current use and re-use of the St. Luke's and St. Elizabeth's facilities/campuses. SEQRA requires that the EIS consider all reasonably related short-term and long-term impacts, cumulative impacts and other associated environmental impacts. ECL 8-0109(2); 6 NYCRR 617.9(b)(5)(iii)(a). Here, the DEIS's failure to consider cumulative impacts from the afore-mentioned project plans renders the DEIS fatally defective. *See generally,* DEIS, Section 5 and 8.2; *see also Sun Co., Inc. v. City of Syracuse Industrial Dev. Agency,* 209 A.D.2d 34 (4th Dep't 1995).

More specifically, Section 5.1.1 of the DEIS gives short shrift to impacts from the Nexus Project/U District, stating that the project is currently speculative and, therefore, need not be addressed in the DEIS. This is simply untrue. Action has already been taken to make way for the Nexus Project (i.e., the recent demolition of the Tartan Textile Building), and State funding for the Nexus Project is imminent. Therefore, impacts associated with the Nexus Project (including, but not limited to, traffic/transportation, waste water/storm water, noise) are cumulative impacts that must be identified and evaluated in the DEIS. *See, e.g., Save the Pine Bush v. City of Albany,* 70 N.Y.2d 193, 206-07 (1987) (finding that the failure to consider cumulative impacts of other pending projects for the subject area violated SEQRA and invalidated ordinance approving the requested zoning change).

Likewise, the planned changes to operations at St. Luke's and St. Elizabeth's (which are discussed in DEIS Appendix A [Certificate of Need Application]) and the proposal to re-use parts of these properties for other types of community-related purposes need to be (but were not) evaluated as part of the cumulative impact analysis in the DEIS. *See* DEIS Section 8.2; *see also Sun Co., Inc.,* 209 A.D.2d at 46-49 (stating that the lead agency must consider the cumulative effect of other simultaneous or subsequent actions that are included in any long-range plan of which the action under consideration is a part; invalidating agency's condemnation of property for development of a shopping center where agency limited the EIS to the shopping center and thereby impermissibly failed to assess the environmental impact of other development projects contemplated by the agency's master development plan for the area); *Teich v. Buchheit,* 221 A.D.2d 452 (2d Dep't 1995) (finding SEQRA's anti-segmentation principle violated where agency failed to consider impacts from a proposed parking lot as part of the overall development plan for the hospital expansion; observing that such was part of the certification of need application for the hospital's long-range plans). Given that the DEIS and the Certificate of Need for this project plainly acknowledge a significant change/downsizing of operations at St. Luke's and St. Elizabeth's, as well as re-use of these campuses for other purposes, such is part of the IHC project proposal and is required to be (but was not) evaluated in the DEIS. *See also* Exhibit B hereto (Comments from the Landmarks Society of Greater Utica, noting that the St. Elizabeth Campus is eligible for listing on the National Register of Historic Places and located in Utica's Scenic & Historic Preservation District, thus requiring local review and approval by the Scenic & Historic Preservation Commission prior to any exterior alterations or demolition of buildings); Utica Zoning Code, chapter 2-29.

Because the DEIS fails to address these matters, the SEQRA process should be immediately suspended, and a supplemental DEIS is required, subject to full SEQRA procedures. Absent that, were the Board to accept a final EIS without these evaluations and issue its approval for the IHC at the Downtown Site, the Board would have violated SEQRA's anti-segmentation principle. *See, e.g., Sun Co., Inc., supra; Teich, supra*; *see also Segal v. Town of Thompson,* 182 A.D.2d 1043 (3d Dep't 1992) (holding that SEQRA's anti-segmentation principle required an agency contemplating the establishment of a sewer district to consider the environmental impacts of any residential development made more likely by the creation of the district).

### 3. The DEIS is Inadequate and Fatally Defective as to Evaluation of Community Character and Consistency with Local Land Use Plans and Policies

Beyond being simplistic and inaccurate, the evaluation of community character (Section 3.12 of the DEIS) is nothing short of a slap in the face to the Columbia-Lafayette community and the long-term vision and policies set forth in the City's plans and regulations relative to the Gateway Historic Canal District of which the Downtown Site is a part.

Notwithstanding wide-scale destruction of buildings (including historic buildings), the putative use of eminent domain to take people's property, broad-based displacement of existing businesses and affordable housing, displacement of charitable facilities serving this environmental justice area, closure of several downtown streets and the intrusion into the area of a massive, nine-story, 165-foot high, modern, institutional building wholly out-of-proportion to and out-of-character with anything in the surrounding environs, the DEIS's evaluation of community character impacts effectively comes down to one paragraph, and, essentially, one line: namely, that while the magnitude of the impacts will be large, "most impacts are expected to be beneficial because [the IHC project] will better position the hospital to serve... the population of Oneida County," as well as create opportunities for secondary economic development. DEIS, Section 3.12. Stated another way, the DEIS takes the unsupported (in fact, bizarre) position that because the IHC project is a hospital, the community is benefitted, notwithstanding that the *existing* character of the community – including its unique historical character, its existing businesses and existing community fabric – is destroyed. *See, e.g.,* 6 NYCRR 617(c)(1)(iv) & (v) (respectively, identifying conflict with approved community plans/goals and impairment of historic, archeological, architectural, or aesthetic resources or of existing community or neighborhood character as indicators of significant adverse impact).

Under SEQRA, however, the impact to community/neighborhood character must be evaluated based on adverse impact to the "existing community or neighborhood character" (ECL 8-0105[6], 6 NYCRR 617.2[l]), and, thus, the DEIS wholly misses the mark. *See, e.g., Chinese Staff & Workers Ass'n v. City of New York,* 68 N.Y.2d 359, 366 (1986) (finding that the potential acceleration of the displacement of local residents and businesses is a secondary long-term effect on population patterns, community goals and neighborhood character that must be evaluated; discussing that such effects on the community in general must be examined in addition to looking to impacts directly on the project site); *Village of Chestnut Ridge v. Town of Ramapo,* 45 A.D.3d 74, 94 (2d Dep't 2007) ("Community character is specifically protected by SEQRA"). Moreover, there is no exemption in SEQRA for consideration of adverse impacts to community character merely because a project involves health care. In addition to failing to adequately address these community character impacts, the DEIS fails to identify/evaluate a practicable avoidance/mitigation that would eliminate all of these impacts, but still more than adequately provide for Oneida County's health care needs – namely, moving the IHC project to the St. Luke Campus.

In addition to the above, the DEIS fails to properly identify the special regulations applicable to the Downtown Site and the special policies, goals and implementation strategies pertaining to same. The DEIS states that the Downtown Site is in the Central Business District, but fails to substantively address that the Downtown Site is in the Gateway Historic Canal District[2] to which particular Design Standards apply, as do the related policies, goals and implementation strategies set forth in the City of Utica's Master Plan (October 5, 2011) ("City Master Plan"). (And, as noted above, the Downtown Site also includes a portion of the Downtown Genesee Street Historic District, which is listed on the State and National Register of Historic Places, as well as a host of other eligible properties.)

As discussed in the City Master Plan, a revitalization plan was completed in 2003 for the Gateway District. As a result of that plan, the City Common Council adopted a form-based zoning code in 2005 to regulate development in the Gateway District. "The original intent behind the form-based code was the *preservation of the historic feel of the district.* City Master Plan, p. 17 (emphasis added). "The form-based code acknowledges the significant architecture that remains in the Gateway area and provides for a mix of uses *compatible with the historic*

[2] The Gateway Historic District is bounded by State Street to the west, Columbia Street to the south, Genesee Street to the east, and the CSX rail line to the north. *See* City of Utica Mater Plan (October 5, 2011).

*development.*" City Master Plan, p. 63 (emphasis added). The demolition of architecturally significant buildings, as proposed in the DEIS, is the antithesis of "preservation" or being "compatible" with historic development.

The City Master Plan also sets forth a discussion of general vision, as well as specific goals and policies, for downtown development, cultural/historic resources, and historic and preservation districts, all of which are not considered in the DEIS, and all of which are violated by locating the IHC on the Downtown Site. Illustrative excerpts from the City Master Plan follow:

<u>Downtown Development</u>

- City Master Plan, p.17 – "The buildings that remain within the [Gateway] District are some of the oldest in the City and are architecturally significant. With adherence to the strict design standards [of the form-based code], *new construction will echo the form and details of the older architecture*." (Emphasis added.) This section also discusses extending the boundaries of the form-based code to more of downtown in order to "preserve and enhance the architecture of downtown."

- City Master Plan, p.36 – "Through the master planning process, Utica residents and business leaders have described a vision for the City's future that *builds on the architectural character and diversity of downtown.* For many in Utica, the success of downtown is the foundation for success within the City's other neighborhoods. This vision is one that enhances the quality of life for existing residences as well as creates an attractive place for new residents, visitors and businesses. *Boosting historic and cultural resources located in downtown will serve to help strengthen Utica as a more exciting place for people and businesses.*" (Emphasis added.)

- City Master Plan, pp. 37-40 – This section discusses new commercial opportunities for downtown (including retail, restaurants, and residential), stating that the City is well-positioned to capture demand for downtown living, based, in part, on the arts, history and culture.

- City Master Plan, p. 44 – This section discusses strategies for downtown development, namely, to promote residential and mixed-use development downtown "consistent with Utica's heritage and architecture" via, among other means, (1) utilizing public money to rehabilitate historic buildings and buildings that contribute to Utica's historic character; and (2) developing design standards that complement and enhance predominant uses and architecture in each of the downtown neighborhoods and sub-districts.

<u>Historic Preservation – Arts/Cultural and Historic Resources</u>

- City Master Plan, p. 51 – "The City of Utica has something many other communities around the nation want – historic character and a strong sense of authenticity. Since appearance is fundamentally linked to economic success, these urban attributes are fundamentally tied to the City's ongoing revitalization effort. The City recognizes this and *wants to protect these very important assets.*" (Emphasis added).

- City Master Plan, p.53 – This section discusses cultural and historical assets and impact on travel/tourism, stating that "Utica's cultural and historic assets are key features to attracting visitors to the City and enhancing the quality of life offered to its residents." This section also notes findings from Oneida County Tourism study, stating that the study's findings "are a compelling reason to continue to *build on the City's recreation, arts, cultural and historic amenities.*" (Emphasis added.)

<u>Goals and Strategies for Historic Preservation, including the Gateway District</u>

- City Master Plan, p. 55 – Goal 4: formalize protection, and enforcement of that protection, for historic buildings, historic districts and historic neighborhoods; expand historic districts, and enforce standards applicable to them.

- City Master Plan, p. 63 – This section notes the objective of the form-based zoning code for Gateway District, stating that such code acknowledges the significant architecture that remains in the Gateway area and provides for a mix of uses "*compatible with historic development.*" (Emphasis added.)

- City Master Plan, pp. 65-66 – This section discusses goals for brownfield sites, including in the Gateway District: (1) Goal 1, attracting new businesses and industry; (2) Goal 2, facilitate retention and expansion of local business and individuals; (3) Goal 3, create more sites for business development in the Gateway District; (4) Goal 7, expand and capitalize on Utica's diverse historic and cultural fabric.

The DEIS does not even acknowledge, let alone address, the many material conflicts that use of the Downtown Site for the IHC poses to the City Master Plan and related plans and regulations. Notably, "material conflict[s] with a community's current plans or goals as officially approved or adopted" are strong indicia of significant adverse environmental impacts that must be mitigated or avoided. 6 NYCRR 617.7(c)(1)(iv). The same is true for impairment of the character or quality of important historical, archeological, architectural or aesthetic resources. 6 NYCRR 617.7(c)(1)(v).

Indeed, the material conflicts with the City's plans/goals, and the significant adverse impacts on historic resources and community character, resulting from use of the Downtown Site for the IHC is further underscored by commentary from the Landmarks Society of Greater Utica earlier in this process. That commentary includes the following conclusions:

> (1) large-scale, multi-block demolition of a significant segment of the downtown area ... destroys the fabric, character and sense of place that defines the uniqueness of what makes Utica what it is;
>
> (2) the buildings that would be lost represent a lost opportunity for small-scale structures where ground floor commercial uses would complement upper floor residential uses in a walkable, urban setting, which would be in keeping with the tenets of the National Trust of Historic Places;
>
> (3) the IHC located at the Downtown Site would be "a huge, iconic structure surrounded by a sea of parking ... [which] would be the antithesis of what makes Utica unique;" and
>
> (4) locating the IHC on the St. Luke Campus is far more suitable than locating it on the Downtown Site.

And, these conclusions and concerns relative to significant deleterious, irreversible impacts on historic resources (which the Applicant and its supporters have ignored) are reiterated and further discussed in the comment letter of the Landmarks Society of Greater Utica, dated December 27, 2018 (Exhibit B hereto) (noting, *inter alia,* impacts to historic resources in historic district on National Register; inadequate SHPO process; violations of City Master Plan, Gateway Historic Canal District design guidelines, New York State Historic Preservation Plan; and impacts to community character and authenticity of the Erie Canal era neighborhood).

The failure of the DEIS to identify these conflicts, substantially assess them, and attempt to mitigate them renders the DEIS fatally defective.

**4. The DEIS is Incomplete, Inadequate and Fatally Defective as to the Site Selection Process**

As noted in Part A above, the DEIS is incomplete for failure to append the entire site selection study. *See* DEIS, Appendix D (containing only the executive summary). This omission, in conjunction with the brief public comment period (with the comment deadline two days after Christmas), appears to be a calculated measure to preclude meaningful public review.

As fully detailed in the comments submitted by Frank Montecalvo, Esq., dated December 26, 2018 (Part I.K), selection of the Downtown Site for the IHC long preceded the commencement of any type of SEQRA review, rendering the site selection process described in the DEIS a total sham. As reflected in Mr. Montecalvo's comments, the site selection process was designed to have a pre-determined outcome; that is, (1) the Downtown Site was selected and promoted prior to any site study, (2) the consultants hired later to perform the site study were hired with the expectation and aim of designing the study to result in selection of the Downtown

Site, and (3) the Applicant was strong-armed into approving the Downtown Site as its preferred choice. For this reason alone, the DEIS is fatally defective, and further analysis and a supplemental DEIS are required relative to site selection.

As for the substance of the executive summary, this, too, shows that the site selection process was anything but objective and impartial, as criteria were highly subjective and of questionable validity, and scoring of sites and the ultimate selection of the Downtown Site are suspect at best. In this regard, we adopt and incorporate herein by reference the comments of Mr. Montecalvo.

### 5. The DEIS is Inadequate and Fatally Defective as to Evaluation of Alternative Sites and Practicable Mitigation, Particularly Relative to the St. Luke Campus

The DEIS is fatally defective for failing to identify the St. Luke Campus as a practicable avoidance/mitigation measure relative to a host of significant adverse impacts associated with the Downtown Site, hence making the St. Luke Campus the alternative that avoids or mitigates adverse impacts to the maximum extent practicable. These impacts include, but are not limited to, the following:

- Impacts from contaminated soils due to prior industrial use of the Downtown Site (land, air [fugitive dust], surface water, ground water) would be avoided by developing the IHC on the St. Luke Campus.

- Massive impacts to community character, aesthetic resources and historic/archaeological resources would be avoided by developing the IHC on the St. Luke Campus.

- Material conflicts with community plans/goals would be avoided by developing the IHC on the St. Luke Campus, as the proposed uses are fully consistent with New Hartford zoning and plans, and the St. Luke Campus is currently being used for medical/health-related purposes.

- Impacts to human health from potentially catastrophic events related to the CSX rail line, and impacts to human health potentially resulting from excavation of contaminated soils on the Downtown Site, would be avoided by developing the IHC on the St. Luke Campus.

- Impacts to transportation/traffic (due to street closures/destruction of a portion of the Street Grid) would be avoided by developing the IHC on the St. Luke Campus.

- Impacts relative to environmental justice – i.e., the displacement of this entire neighborhood and the charitable services located there – would be avoided by moving the IHC to the St. Luke Campus, as this site is already being used for an institutional use and would not require the displacement of any environmental justice area.

- The need to develop information on cumulative impacts relative to the Nexus Project would be avoided by developing the IHC on the St. Luke Campus.

- Were the IHC developed at the St. Luke Campus, it would result in a negligible increase of approximately 27 beds. Therefore, no new or significant increase in impacts should be expected at this site. That is, the nature and intensity of operational environmental impacts (e.g., surface water, groundwater, air, aesthetic resources, transportation, utilities, energy, noise, odor, human health and solid waste impacts) would be minimal and certainly far less than at the Downtown Site.

- Last, but not least, issues regarding site access or invoking eminent domain (and the resulting disruption) do not exist at the St. Luke Campus, given that the Applicant owns this property. Relative to the Downtown Site, if the Applicant has the power of eminent domain, invoking that power will adversely impact and be disruptive to affected property owners; of course, any such impacts would be avoided by utilizing the St. Luke Campus for the IHC project. If the Applicant does not have the power of eminent domain, the inability of the Applicant to complete the consultation process required under article 14 of the PRHPL (and adequately identify and explore practicable mitigation measures in the SEQRA process) demonstrates that the Downtown Site is a defective site that should be excluded from analysis.

At the end of the day, the DEIS does not provide an adequate impact evaluation or cogent support for locating the IHC at the Downtown Site. Reduced to its essence, developing the IHC at the Downtown Site will result in massive unavoidable, unmitigable environmental impacts – including the destruction of a vibrant, historically and culturally significant neighborhood, in contravention of the City Master Plan and other officially adopted protections for historic districts. And, all of this havoc will occur, for the net benefit of 27 hospital beds, which readily could be incorporated into the existing medical campus at St. Luke's and, thereby, avoid the broad-scale destruction of the Columbia-Lafayette neighborhood.

We respectfully maintain, therefore, that, for the reasons set forth above, the SEQRA process must be reopened, a supplemental DEIS issued, and the aforementioned impacts seriously addressed in the public review process.

Very truly yours,

Thomas S. West

TSW/cmm
cc: Mr. Brett Truett

# EXHIBIT A

## PETITION SIGNATORIES

**We, the undersigned, do hereby respectfully request an extension of the SEQRA public comment period on the DEIS for the Mohawk Valley Health System Hospital Project (Project) by at least sixty (60) days from December 27, 2018, in order to allow for meaningful public review of and comment on the complex more-than-3,500-page DEIS for this Project.**

| Signature | Printed Name | Address |
|---|---|---|
| Jeffrey B. Kahn | Jeffrey B. KAHN | 11 KENYON COURT. |
| [illegible] | Kevin Rowe | 54 Greenacres dr whitesboro, N.Y. 13492 |
| Alison Brown | Alison Brown | 16 Amy Ave Utica NY 13502 |
| Gabriel Karnz | [illegible] | 2124 Sunset Ave Utica NY 13502 |
| [illegible] | Dean Steppello | P.O. Box 592 Utica N.Y. 13503-059 |
| [illegible] | Victor D Chambers | 1202 Belle Ave Utica NY 13501 |
| [illegible] | Molly Domenico | 2011 GENESEE UTICA NY 13501 |
| [illegible] | Isaiah Christian | 1609 Holland Ave. Utica NY 13501 |
| [illegible] | Eleni M. Marketos | Utica, NY |
| Kim C Domenico | Kim C Domenico | 2011 Genesee St Utica NY |
| [illegible] | Sean Welch | PO Box 21 Bridgewater N.Y. 13313 |
| [illegible] | Orin Domenico | 17 Grant St Utica 13501 |

## PETITION SIGNATORIES

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| Signature | Printed Name | Address |
|---|---|---|
| [signature] | Ellie Newberry | 30 East River St Ilion, NY 13357 |
| [signature] | Scott Tracett | 2321 Oneida St Verona Beach NY 13162 |
| [signature] | Krista Petrowski | 5721 Walker Rd Deerfield NY 13502 |
| [signature] | Matt Petrowski | 5721 Walker Rd Deerfield, NY 13502 |
| [signature] | George Zachary | 506 Briarcliff Ave Utica NY 13502 |
| [signature] | Lauren Meza | 414 Reese Rd. Cold Brooke, NY 13324 |
| [signature] | Linda S Fatata | 100 Arlington Rd Utica, NY 13501 |
| [signature] | Linda Forsythe | 18 Leslie Ave Utica NY 13501 |
| [signature] | Mary LaBella | 121 Sheila Pl Frankfort, 13340 |
| [signature] | Michael Gentile | 484 Van Ellis Rd Utica NY |
| [signature] | Danielle Czarnecki | 2592 Cheese Factory Rd. Barneveld NY, 13304 |
| | | |

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| Signature | Printed Name | Address |
|---|---|---|
| Robert DeSanctis | Robert DeSanctis | 2622 Edgewood Rd Utica NY 13501 |
| Timothy L Trent | Timothy Trent | P.O. Box 545 Utica, NY 13503 |
| James J. Brazinski | JAMES J. BRAZINSKI | 509 HENRY STREET UTICA, N.Y. 13502 |
| David Dreco | DAVID DRECO | 1423 SUNSET UTICA N.Y. 13502 |
| C.M. Synakowski | C.M.Synakowski | 49 Pinecrest Rd. Whitesboro. 13492 |
| Al LaSalle | Alfred LaSalle | 916 Brayton |
| Ron Vincent | RON VINCENT | 477 ROSECLAIR AVE |
| Scott Walrath | Scott Walrath | 128 Westminster Place Utica 13501 |
| Jennifer Evans | Jennifer Evans | 10291 Ridgefield Rd Utica, NY 13502 |
| | | |
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## PETITION SIGNATORIES

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| Signature | Printed Name | Address |
|---|---|---|
| Lucio Porcia | Lucio Porcia | 810 Bleecker St. Utica, N.Y. 13501 |
| Joseph Cerini | Joseph Cerini | 174 Elm St Ilion NY 13357 |
| Michael Cerini | MICHAEL CERINI | 510 S. Litchfield S. FRANKFORT NY |
| Sam | Samantha Cerini | 1106 Center Rd. Frankfort, NY 13340 |
| Alyssa Scherer | Alyssa Scherer | 832 Wall St West Winfield, NY 13491 |
| Josh Cerini | Joshua Cerini | 2315 W. Highland Ave Yorkville NY 13495 |
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| Signature | Printed Name | Address |
|---|---|---|
| [illegible] | NiKolaoS Xydous | 633 tracy St. Utica NY |
| Malcolm A. Basi | MALCOLM A. BASI | 1008 MARY ST. UTICA, N.Y. |
| Mary Wisniewski | MARY Wisniewski | 1009 Mary Utica NY 13501 |
| Shawn davis | 823 Albany ST | |
| Tabitha Campbell | Tabitha Campbell | 823 Albany ST 3 Fl |
| Michael Lacy | Michael LACY | 123 Gold St. |
| | | |
| | | |
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## PETITION SIGNATORIES

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| Signature | Printed Name | Address |
|---|---|---|
| [signature] | FRANK MONTECALVO | 202 Comenale Cres NY MILLS, NY 13417 |
| [signature] | Jim Brock JR | 1900 GENESEE ST. UTICA, N.Y. 13502 |
| Colleen Truax | Colleen TRUAX | 245 OxFORD Rd New HARTFORD, NY 13413 |
| Jonathan H. Brock | Jonathan H. Brock | 2 Tennyson circle New Hartford NY 13413 |
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**PETITION SIGNATORIES**

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| Signature | Printed Name | Address |
|---|---|---|
| Lynne Mishalanie | Lynne Mishalanie | 2807 Milton Place Utica, N.Y. 13501 |
| Phyllis Mishalanie | Phyllis Mishalanie | 711 Armory Dr. Utica, NY 13501 |
| Teresa Halliday | TERESA HALLIDAY | 601 Cosby Rd Utica, NY 13502 |
| Nick Gioppo | Nick Gioppo | 2814 Milton Pl. Utica NY 13501 |
| Donna Kistler | DONNA KISTLER | 2816 MILTON UTICA 13501 |
| Diane Lacey | DIANE Lacey | 2807 Milton PL Utica, NY. |
| Mary Finkle | Mary Finkle | 2712 Brighton Pl. Utica, NY 13501 |
| J Gerace | J GERACE | 527 Jefferson Utica, NY 13501 |
| [illegible] | Patricia Hamilton | 309 Cottage St Rome NY 13440 |
| | | |
| | | |
| | | |

**PETITION SIGNATORIES**

**We, the undersigned, do hereby respectfully request an extension of the SEQRA public comment period on the DEIS for the Mohawk Valley Health System Hospital Project (Project) by at least sixty (60) days from December 27, 2018, in order to allow for meaningful public review of and comment on the complex more-than-3,500-page DEIS for this Project.**

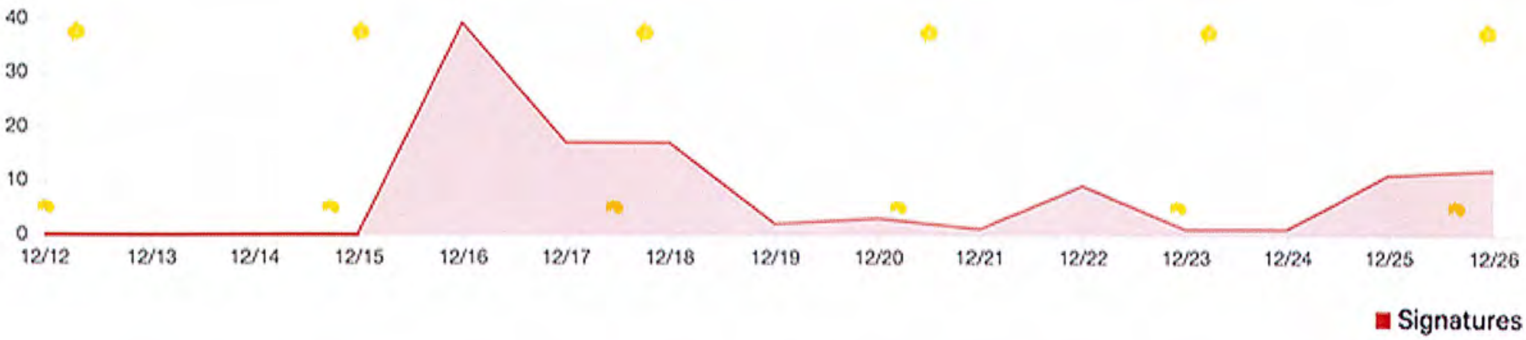
| Signature | Printed Name | Address |
|---|---|---|
| Brett B. Truett | BRETT B. TRUETT | 10-12 Liberty St. Utica NY 13502 |
| James McFarland | JAMES McFARLAND | 120 HAWTHORNE Ave UTICA N.Y 13502 |
| Katie Martin | Katie MARTIN | 23 Parkway Drive Whitesboro, NY 13492 |
| [illegible] | Jesse Martin | 23 Parkway Drive Whitesboro, NY 13492 |
| [illegible] | Andrew Piseck | 171 Genesee St Utica, NY 13502 |
| Matthew [illegible] | Matthew LaPlante | 309 Ridge Rd Oriskany NY 13424 |
| [illegible] | Stephen N. Keblish | 106 Genesee St. Utica NY 13502 |
| [illegible] | Joe Nicolette | 2350 Burdett Ave Troy, NY 12180 |
| [illegible] | Francesca Palladino | 7625 Streiff Rd Rome, NY, 13502 |
| Donna Beckett | DONNA BECKETT | 12 NORTON AVE CLINTON NY 13323 |
| [illegible] | Jonathon T Matwyee Waldr | 700 W. DOMINICK ST A873 ROME, NY 13440 |
| [illegible] | PRINT :) AKA. | 772 RUTGER ST UTICA N.Y. |

We are currently generating your PDF file of comments. When the file is ready, we will send you an email at editor@nohospitaldowntown.com.

change.org Start a petition Browse Membership

**Extend Public Comment Period For New MVHS Hospital DEIS**
109 supporters

Dashboard




# PLEASE NOTE

December, 27, 2018

**Our online petition at:**

change.org/p/city-of-utica-planning-board-extend-public-comment-period-for-new-mvhs-hospital-deis

**Collected an additional 109 signatures that were not printable in time to be added to the attached signatures within exhibit A.**

**Please take this into consideration.**

**Sincerely,**

Brett B Truett

**Brett Truett, Cofounder**
**#NoHospitalDowntown**

# EXHIBIT B

Landmarks Society Of Greater Utica
1124 State Street / Utica, NY 13502 / 315.732.7376 / www.uticalandmarks.org

December 27, 2018 ***VIA HAND DELIVERY AND E-MAIL***

Mr. Fred Matrulli, Chairman- City of Utica Planning Board
c/o Department of Urban & Economic Development
1 Kennedy Plaza
Utica, New York 13502

**RE: MVHS proposed IHC- Request for SEQRA DEIS public comment period extension**

Dear Mr. Matrulli:

The Landmarks Society of Greater Utica (LSGU) supports an extension of the MVHS proposed IHC SEQRA DEIS public comment period by 60 days. We believe this is necessary given the complexity of the many interrelated issues being reviewed, the incomplete and inaccurate information currently included in the November 15 DEIS, and the need to distinguish between speculative conjecture on MVHS's part and fact. There are significant contradictions present in the submitted project which intends to demolish all buildings in the proposed campus footprint including 2 National Register of Historic Places (NRHP) listed properties-301 & 401 Columbia St.- and 9 NRHP eligible properties. The current US Secretary of the Interior guidelines discourage demolition only as a last resort after all other options have been exhausted. Since the St. Luke's campus is a viable 2nd site, as determined by MVHS, another option to explore exists. Three properties are also in the expanded NRHP listed Downtown Genesee Street Historic District which represents an obstacle to removal as demolition in the district is also restricted. NYSHPO requires investigation and documentation of the above mentioned historically & culturally significant properties, which in many cases has not yet commenced, and is required as part of the SEQRA process. Such demolitions also violate the goals of the adopted Utica Master Plan, the Gateway Historic Canal District design guidelines, NYS Historic Preservation Plan, and compromise the community character and authenticity of this legacy Erie Canal era neighborhood.

DASNY requires additional clarification from MVHS as to what functions are remaining at the various campuses and how this would promote a consolidation/integration of the health care system. The NRHP eligible St. Elizabeth campus, which MVHS is proposing to repurpose, is located in Utica's Scenic & Historic Preservation District and subject to review/approval of any exterior alterations or proposed demolition.

Given the amount of information, 3500+ pages, with which a reviewer would need to become familiar, the truncated time frame of the minimal designated comment period during Thanksgiving and Christmas, and incomplete cart-before-the-horse MVHS submissions, we do not believe that sufficient time has been allotted for stakeholders to fully process the information. An opportunity for meaningful public input has not been provided for this very important project which will have an irreversible, long term, and far reaching impact on Utica and the Mohawk Valley. Please do not hesitate to contact me at LSGU should you require additional information.

Thank you for your careful consideration and deliberation regarding this matter.

Sincerely,

Steven Grant

Steven Grant, President and the Board of Trustees of the Landmarks Society of Greater Utica

Cc: Thomas S. West- The West Firm

Kuty

## MVHS Environmental Impact Statement Response

My name is Tyler Kuty. I am a resident of New Hartford, a current student of the Urban and Regional Studies Program at Cornell University and an intern for Joseph Wicks at the Community Foundation. While I approve of the concept of a hospital in Downtown Utica, I do have some issues with the current proposal based on its impact to transportation and the effects it has on the community character. I understand that there are many reasons for the actions taken by all parties involved, but I hope my comments are taken into consideration by the City of Utica, MVHS, and NBBJ.

### Impact on transportation

The current proposal includes closing Lafayette Street from Broadway to St. Marienne Way. The reason to close Lafayette from Broadway to State St. is understandable as MVHS does not want vehicles driving through the main entryway, however, there does not appear to be a reason to close Lafayette from State St. to St. Marienne Way other than an attempt to encourage use of the far parking lots. NBBJ and the City of Utica should reconsider closing this block as it both blocks another pathway to get from West Utica to Downtown and the hospital, but more importantly, it limits the possibility of future development along Lafayette Street both east and west of Route 12.

### Effects on Community Character

The hospital does little to preserve the historic character the neighborhood it is in. Some properties, such as those within the footprint of the hospital, will need to be demolished. Others, like 401 and 500 Columbia St. and 300 Lafayette St., are being demolished to create a parking lot, and 301 Columbia St. is being demolished to create a vacant lot. All of these lots hold some historical character that is important for the community, such as 300 Lafayette St.'s history as the former trolly depot and the only remaining history of the trolly lines. All of these lots have potential for future use as offices, retail, food malls, or apartments if they were to remain standing. Their demolition could be representatives as the hospitals plan to start off on a new slate and not preserve incorporate itself into the fabric of the current neighborhood. If the hospital chose to locate the proposed medical office building into an existing building like 401 Columbia or 600 State St, it could save some the buildings, preserve some historic character, and potentially reduce the cost to MVHS.

Through the demolition of historic resources and the closing of cross streets, the new MVHS campus creates a superblock and disassociates itself from Downtown and Varick St. With the current existence of superblocks at Kennedy Plaza, the Delta Hotel, and Hanna Park, the creation of another superblock will cement the feel of this area as a suburban setting, not as an extension of Downtown or Varick St. These superblocks are both physical and psychological barriers to pedestrians and development, limiting the walkability of Downtown and the viability of future development in their neighborhood.

One parking garage is being built, and while it is not being built by MVHS, it is still part of the plan. MARCH architects should be encouraged to look at a number of innovate parking structure that limit the negative impact on the community and can include things such as ground level retail or garage beautification efforts.

Perhaps the most important issue with the hospital is its use of surface level parking. While economics is the clear decider of what type of parking to create, excessive use of surface level parking will have negative effects on the revitalization efforts of Downtown. To rectify this, MVHS should look into repairing or utilizing existing parking structures such as the municipal owned garage at city hall or even the garage at Delta Hotel. If necessary, the hospital should create a revitalization plan that can address the excessive use of parking when the money becomes available to create a second parking garage to reduce the amount of surface level parking.

NYSDOT

NEW YORK STATE OF OPPORTUNITY. | Department of Transportation

**ANDREW M. CUOMO**
Governor

**PAUL A. KARAS**
Acting Commissioner

**NICOLAS A. CHOUBAH, P.E.**
Regional Director

December 27, 2018

Mr. Brian Thomas
Commissioner
Dept. of Urban & Economic Development
One Kennedy Plaza
Utica, NY 13502

**RE: SEQR – Mohawk Valley Health System**
**Integrated Health Campus**
**Draft Environmental Impact Statement**

Dear Mr. Thomas:

As requested, the New York State Department of Transportation (NYSDOT) has reviewed the Draft Environmental Impact Statement (DEIS) including the Traffic Impact Study for the proposed Mohawk Valley Health System (MVHS) Integrated Health Campus to be located in downtown Utica. Upon review of the information provided, NYSDOT offers the following comments:

General Comments

1. Overall, the Traffic Impact Study relied solely on traffic signal timing changes to mitigate the effects of the increased traffic volumes associated with the development. In addition, some of the proposed timing changes result in level of service drops to mainline NY 5S. Signal upgrades and geometry changes will be required to achieve acceptable level of service.
2. The traffic volumes were collected in July 2018 when school was not in session and no adjustments were made. Also, the NY 5S 2019 projections are higher than the MVHS 2022 projections.
3. Please provide the traffic modeling software (Synchro) files used in the capacity analysis to this office.
4. As part of the ongoing NYSDOT project, the NY 5S intersections with Washington and Seneca Streets will no longer be signalized and access will be restricted.
5. Pedestrian accommodations – crosswalks and pedestrian countdown timers should be provided. Please ensure all pedestrian related features are compliant with the 2011 PROWAG (Public Right of Way Accessibility Guidelines).

Traffic Volumes & Trip Generation

1. Three lane sections on both State Street and Genesee Street should be considered for impacted segments to mitigate changes to the downtown circulation patterns associated with the hospital.
2. The build volumes do not reflect the impacts to downtown travel patterns due to the severing of Cornelia and Lafayette Streets.

3. The trip distribution must show use of the Oriskany Street Interchange for trips to and from points south. The expectation is to have the trailblazing for the hospital at the Oriskany Street interchange (blue "H" signs). With the added trips to this ramp system, geometric modifications and signal phasing adjustments may be required at both State Street and Cornelia Street.
4. Currently all added trips from points south of Genesee Street are shown as left turns at Court Street where left turns are prohibited. Re-distribute additional lefts from Genesee Street northbound onto Columbia and Lafayette Streets.
5. At the 375-space parking lot at State & Cornelia, a two-way entrance could be placed on Cornelia Street with a right-in/right-out access on State Street.
6. The projected build volumes show a decrease in traffic at the Columbia/Cornelia and State/Lafayette intersections. The need for a traffic signal should be evaluated at these locations.

Traffic Model & Mitigation

1. The intersections of Court Street/N-S Arterial Ramps and Court/State Street do not appear to be analyzed properly. The full Court Street/Ramp interchange should be studied and shown as coordinated with the Court/State Street intersection.
2. With adjustments made related to the Oriskany Street trip distribution, it is likely that mitigation will be required at both the intersections of State Street Ramp and NY 5S & Cornelia Street. These intersections should be evaluated further with consideration of possible movement prohibitions, geometric changes or alternative traffic control.
3. Traffic signals along city streets, including State, Columbia, and Genesee need to be upgraded or replaced for full detection, actuation, and communication to achieve the mitigated intersection levels of service depicted in the report.
4. In the Synchro analysis, adequate timing should be provided for pedestrians. The output for the Genesee Street and Bank Place pedestrian signal does not show a phase for the pedestrians.

Utility & Permits

1. A Use & Occupancy permit from NYSDOT may be required for proposed parking lots adjacent to the North-South Arterial (NY 5/8/12).
2. Page 80, The existing Cornelia Street 42-inch line does not connect to the proposed outfall under CSX (A9.1) but follows Potter Street and Potter Ave under the CSX to the Mohawk via a 48-inch brick (see attached record plans provided by City of Utica). If the Cornelia Street outlet is used, a separated connection to the A9.1 proposal would be needed. Additionally, the 42-inch line that follows Auditorium Drive is not in the public right-of-way and may require acquisition for the Auditorium Authority.
3. The proposed A9.1 improvements are not shown on Figure 16.
4. Figure 17 – Existing & Proposed Water Mains. Proposed installation of a 12-inch water main along Oriskany Street East between State Street and Broadway if

feasible, should be undertaken in the near future to avoid additional cost to replacement of new installed features under the NYSDOT NY 5S project.

5. Page 85, During the development of the NYSDOT project, the drainage directed to the identified systems was deemed not plausible due to unavailable capacity and interference with sanitary outflow on Potter Ave.

We would be happy to meet to discuss these comments further. Thank you for the opportunity to comment.

Sincerely,

Deborah S. Windecker

Deborah S. Windecker
Regional Planning and Program Manager

DW:BW:kr

cc: Brian Hoffmann, Regional Design Engineer
Linda Lubey, Regional Traffic Engineer
Joe Sciortino, Regional Permit Engineer
Guy Sassaman, Oneida County Planning

**From:** Brian Thomas
**To:** Steve Eckler; "kbennett@bsk.com"
**Cc:** Chris Lawrence; Kathryn Hartnett
**Subject:** FW: [EXTERNAL] Mohawk Valley Health System (MVHS) - Draft EIS
**Date:** Friday, December 28, 2018 1:40:39 PM
**Attachments:** image001.png
8158_1.tif
Q-152.tif
SCAN7211.tif

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City of Utica, New York
Department of Urban & Economic Development
Brian Thomas, AICP - Commissioner
1 Kennedy Plaza
Utica, New York 13502
(315) 792-0181 phone
(315) 797-6607 fax


---

**From:** Watts, Beth E. (DOT) [mailto:Beth.Watts@dot.ny.gov]
**Sent:** Friday, December 28, 2018 1:36 PM
**To:** Brian Thomas <bthomas@cityofutica.com>
**Subject:** [EXTERNAL] Mohawk Valley Health System (MVHS) - Draft EIS



Brian,

Please see attached drawings that should have gone with yesterday's submittal. The record plans were referred to in the "Utility & Permits" section, bullet 2 (see below).

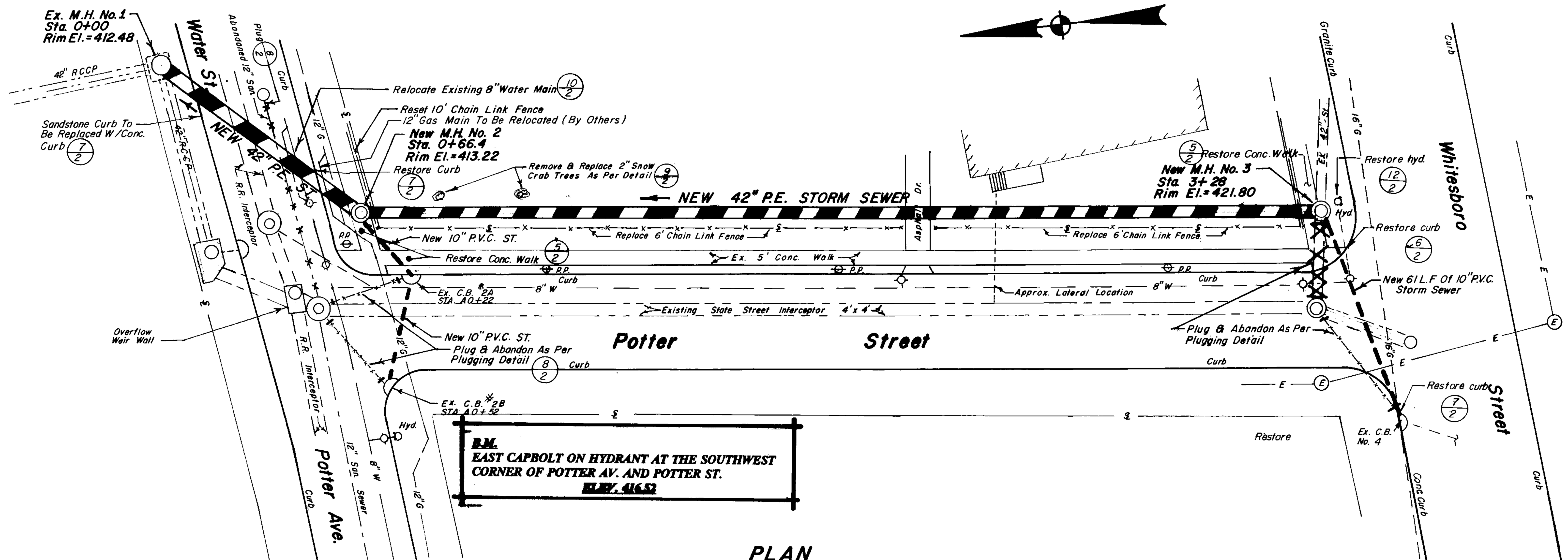
Utility & Permits

1. A Use & Occupancy permit from NYSDOT may be required for proposed parking lots adjacent to the North-South Arterial (NY 5/8/12).
2. Page 80, The existing Cornelia Street 42-inch line does not connect to the proposed outfall under CSX (A9.1) but follows Potter Street and Potter Ave under the CSX to the Mohawk via a 48-inch brick (see attached record plans provided by City of Utica). If the Cornelia Street outlet is used, a separated connection to the A9.1 proposal would be needed. Additionally, the 42-inch line that follows Auditorium Drive is not in the public right-of-way and may require acquisition for the Auditorium Authority.

Thank you,
Beth

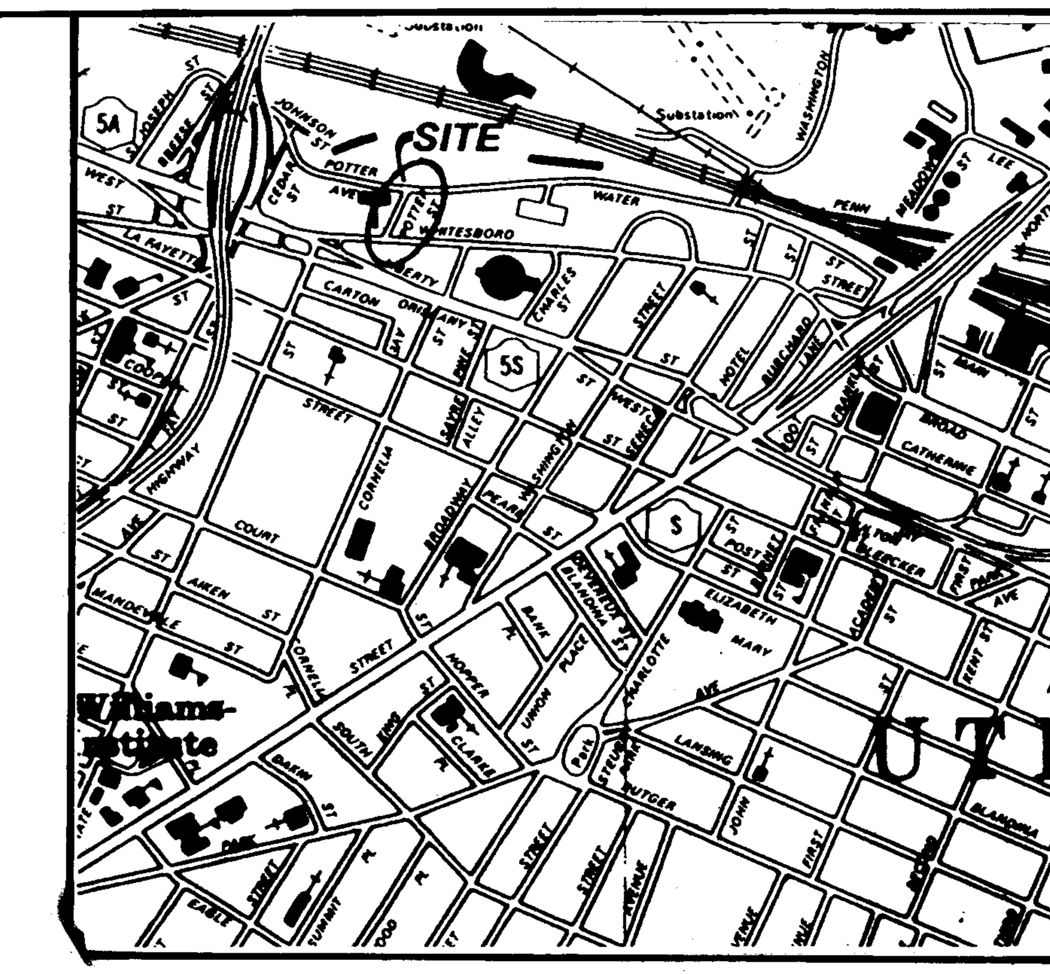

**Beth Watts, PE, PTOE**
Planning & Program Management

**NYSDOT – Mohawk Valley Region**
207 Genesee Street, Utica, NY 13501
315.793.2451 | beth.watts@dot.ny.gov



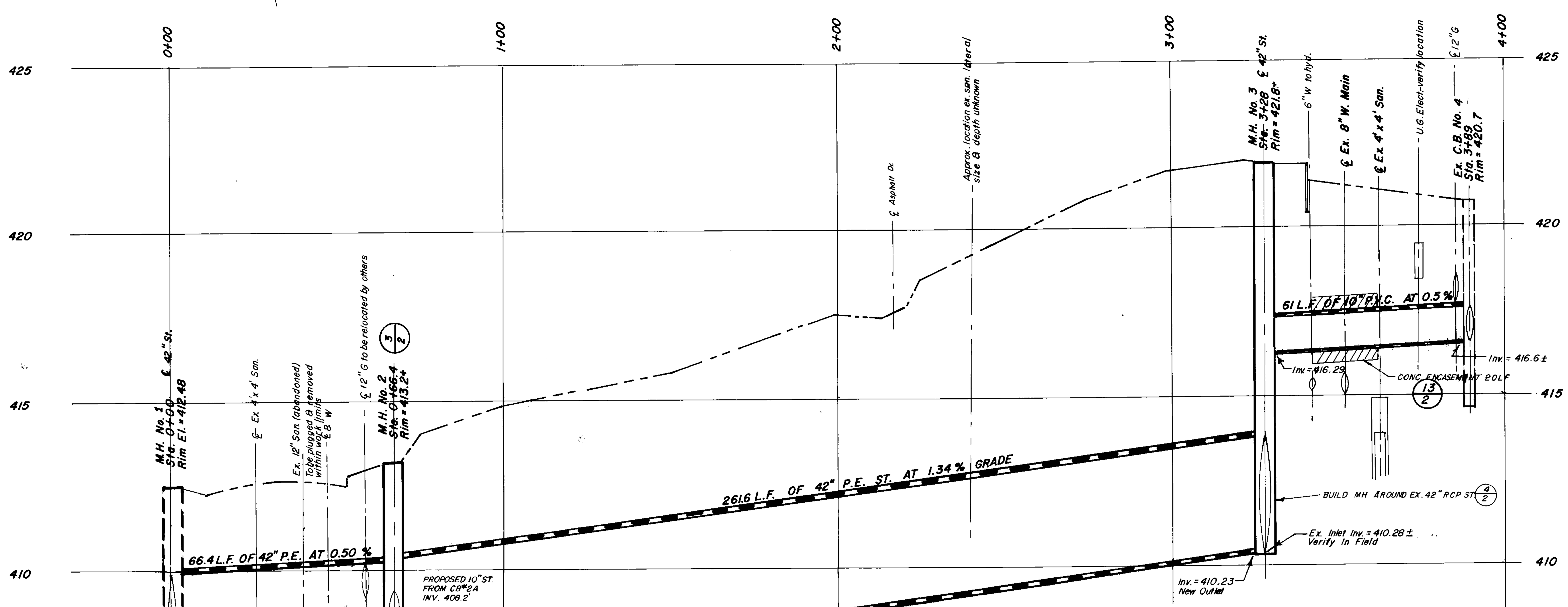

PLAN

SCALE: 1" = 20'



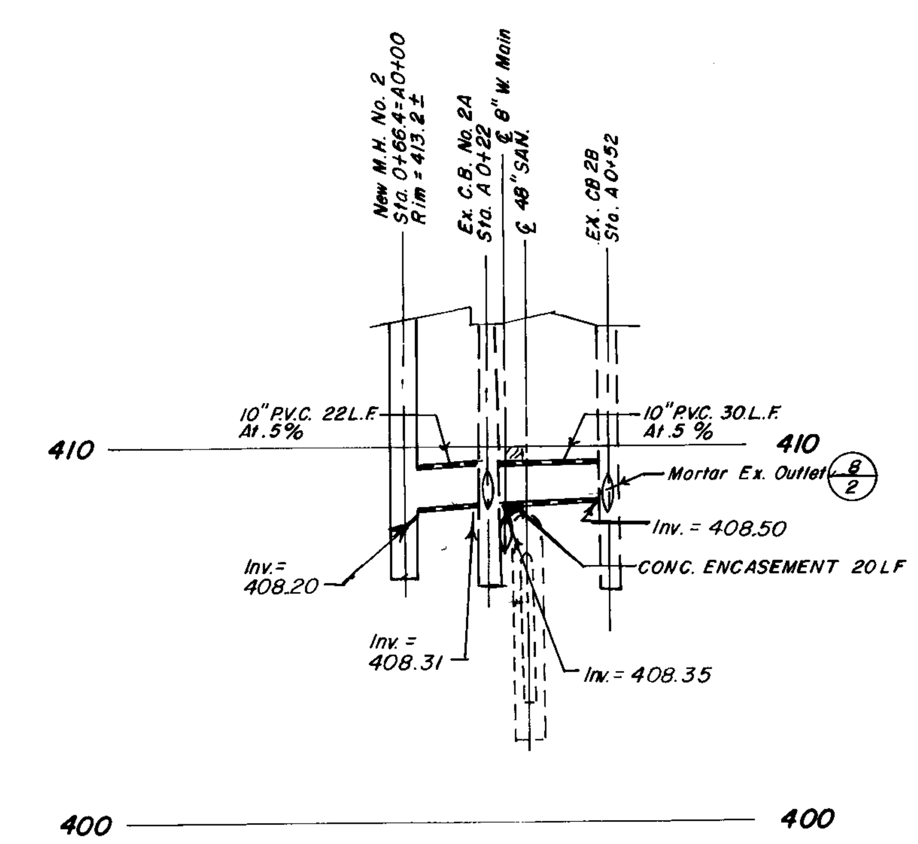

LOCATION PLAN

1" = 800'




PROFILE

SCALE: HORIZ. 1" = 20'
VERT. 1' = 2'



PROFILE

SCALE: HORIZ. 1" = 40'
VERT. 1" = 4'

NOTES

1. CONTRACTOR IS TO INSPECT SITE FOR EXISTING CONDITIONS.
2. CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE LOCATION AND ELEVATION OF ANY UTILITIES THAT FALL WITHIN THE WORK AREA.
3. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ANY UTILITIES THAT FALL WITHIN THE WORK AREA.
4. CONTRACTOR SHALL COORDINATE HIS WORK WITH THAT OF THE UTILITY COMPANY. CONTRACTOR SHALL CONTACT U.F.P.O. AT LEAST 48 HRS. IN ADVANCE OF STARTING WORK AT THE SITE.
5. TEMPORARY SHEETING IS TO BE USED ON ALL EXCAVATIONS EXCEEDING 5' IN DEPTH.
6. ANY ADDITIONAL LABOR, MATERIALS, APPLIANCES, ETC. NEEDED TO RECONSTRUCT THE SIDES, INVERTS, BENCHES AND BOTTOMS OF NEW MANHOLES TO ACCOMMODATE THE NEW PIPE, ARE TO BE INCLUDED IN THE PRICE BID FOR ITEM 706.14 42" P.E. STORM.
7. THE CONTRACTOR SHALL PROVIDE FACILITIES TO MAINTAIN INGRESS AND EGRESS FOR VEHICLE AND PEDESTRIAN TRAFFIC TO ALL PREMISES WITHIN THE WORK LIMITS.
8. THE CONTRACTOR SHALL PROVIDE FACILITIES TO MAINTAIN TRAFFIC FLOW AT ALL TIMES DURING CONSTRUCTION.
9. NEW MANHOLES SHALL HAVE A MINIMUM OF THREE COURSES CONCRETE BRICK INSTALLED UNDER NEW MANHOLE CASTINGS. COST TO BE INCLUDED IN PRICE BID FOR NEW MANHOLE.
10. CONTRACTOR IS TO INSTALL AND MAINTAIN A 2" THICK TEMPORARY COLPROVIA SURFACE ON ALL EXCAVATED PAVEMENT AREAS AND MAINTAIN FOR MINIMUM OF 30 DAYS PRIOR TO PLACING FINAL PAVEMENT. COST TO INCLUDE ANY SUBBASE MATERIALS AS MAY BE NEEDED TO STABILIZE THE ROAD BED FOR THE ABOVE INSTALLATION. MAINTENANCE SHALL CONTINUE UNTIL FINAL PAVEMENT RESTORATION IS COMPLETED. INCLUDE ALL COSTS IN PRICE BID FOR ITEM 15619.2C–MAINTENANCE AND PROTECTION OF TRAFFIC.
11. CONTRACTOR SHALL PROVIDE ALL NECESSARY TRAFFIC CONTROL DEVICES, INCLUDING BUT NOT LIMITED TO DETOUR SIGNS, LIGHTS, WORK SIGNS, FLAGMEN, BARRICADES, ETC. AS OUTLINED IN ITEM 15619.2C.
12. ALL DISTURBED AREAS SHALL BE TOPSOILED AND SEEDED UNLESS OTHERWISE NOTED.

STATE OF NEW YORK
ALAN M. SWIERCZEK
No. 054673
LICENSED PROFESSIONAL ENGINEER

ALAN M. SWIERCZEK P.E.
PO BOX 204
WHITESBORO, NY 13492

**PROJECT NO. 1997 WQ0334 – CONTRACT NO. C300822**

**CONTRACT #1, POTTER STREET, STORM SEWER**

*CLEAN WATER / CLEAN AIR BOND ACT : UTICA SEWER REVITALIZATION PROJECT*

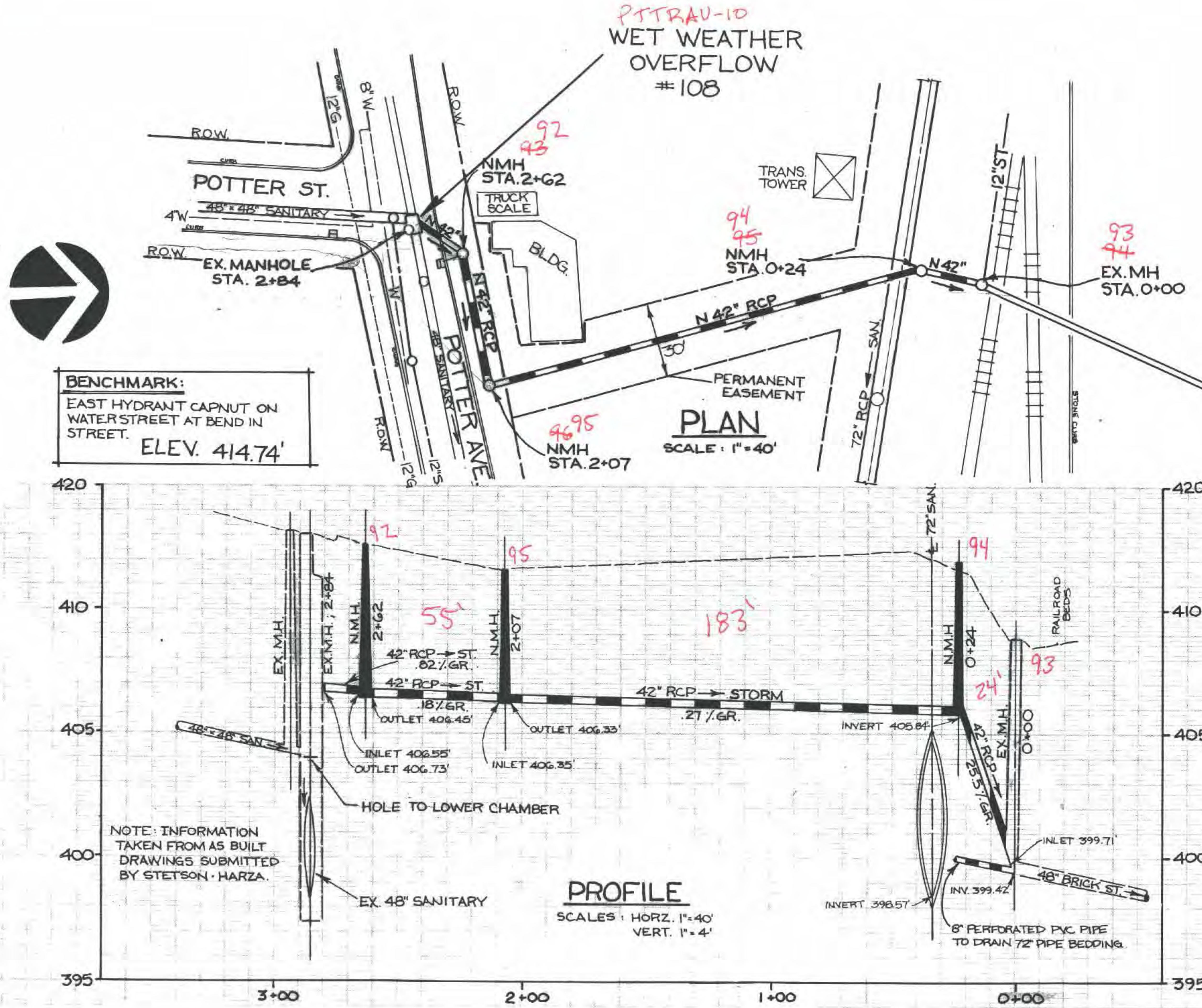
PLANS — SHEET 1 OF 2

DEPT. OF ENGINEERING
UTICA, N.Y.

**CONSTRUCTION OF A NEW 42" STORM SEWER IN POTTER STREET**

**FROM : WATER STREET**
**TO: WHITESBORO STREET**

| | |
|---|---|
| SCALES: AS NOTED | DRAWN BY: T. G. |
| REFERENCE: | TRACED BY: |
| DATE: APRIL 1, 1999 | CHECKED BY: D. DAY |
| APPROVED: | DRAWING NO: |
| CITY ENGINEER | APPROVED: DEP. CITY ENGINEER |

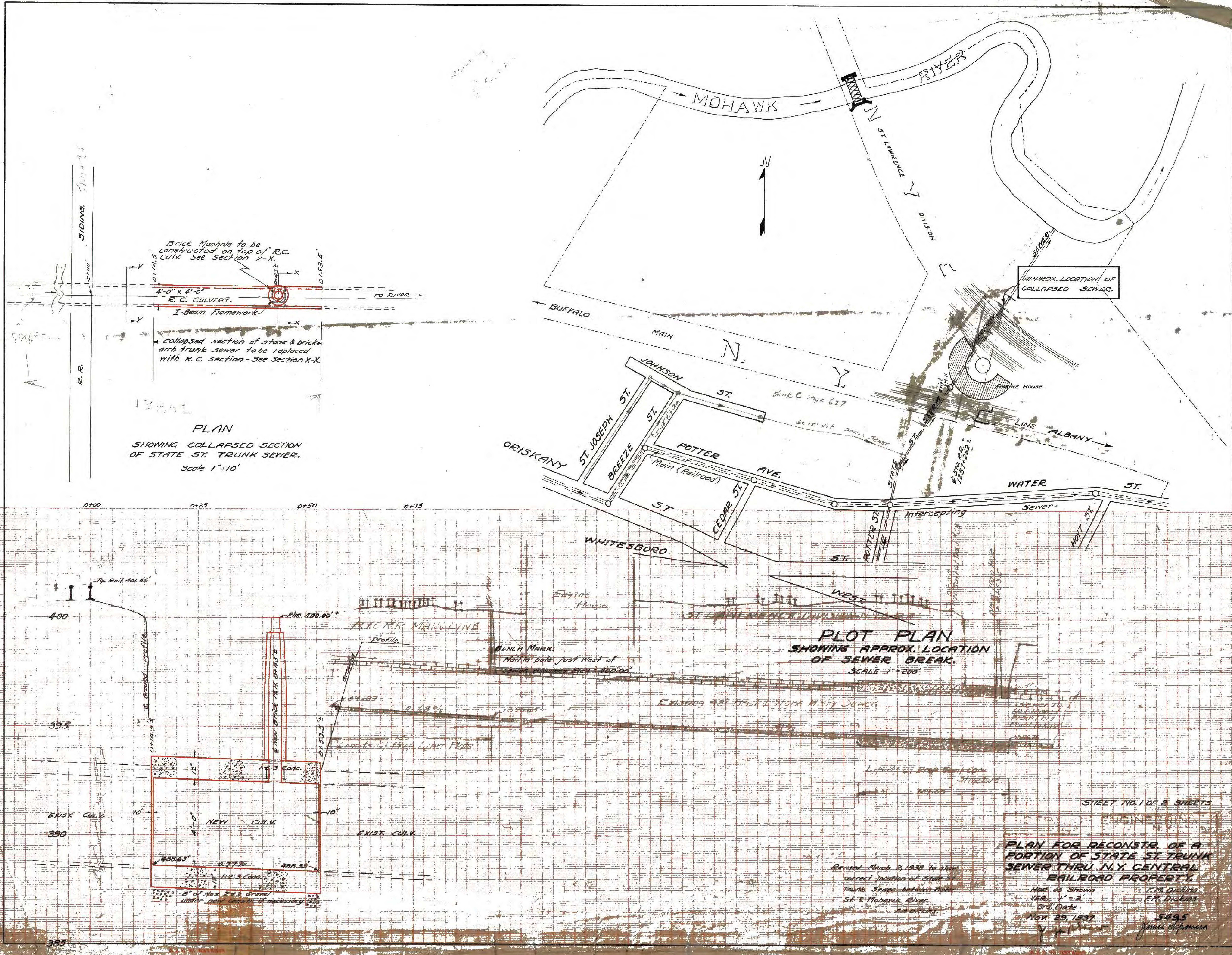



STORM SEWER-OVERFLOW #108
THRU PRIVATE
PROPERTY C.T.M. 3-9-2-1
FROM: POTTER STREET
TO: EX. 48" BRICK
CONTRACT DATE: APRIL 12, 1985
CONTRACT FINAL:
CONTRACTOR: LONGO CONST.
ORD. #: 361
ORD. DATE: DEC. 19, 1984

DRAWING Nº 7982
PAGE 1 of 1

CHECKED BY: E.S.C.
DATE: 4/9/90

Q 152


MOHAWK
RIVER
ST. LAWRENCE
DIVISION
N
N. Y. C.
SEWER
APPROX. LOCATION OF COLLAPSED SEWER.
BUFFALO
MAIN
LINE
ALBANY
ENGINE HOUSE.
JOHNSON ST.
ST. JOSEPH ST.
BREEZE ST.
POTTER AVE.
Main (Railroad) ST.
CEDAR ST.
ORISKANY
WHITESBORO ST.
WEST ST.
STATE ST.
POTTER ST.
WATER ST.
Intercepting Sewer
HOYT ST.
PLOT PLAN
SHOWING APPROX. LOCATION OF SEWER BREAK.
SCALE 1" = 200'
SIDING
R.R.
Brick Manhole to be constructed on top of R.C. Culv. See Section X-X.
4'-0" x 4'-0" R. C. CULVERT.
I-Beam Framework
TO RIVER
collapsed section of stone & brick arch trunk sewer to be replaced with R.C. section - See Section X-X.
0+14.5
0+53.5
PLAN
SHOWING COLLAPSED SECTION OF STATE ST. TRUNK SEWER.
Scale 1" = 10'
0+00
0+25
0+50
0+75
Top Rail 401.45'
400
395
390
385
Rim 400.00' ±
New Brick M.H. 0+43 ±
Profile.
BENCH MARK:
Nail in pole just West of sewer. Assumed Elev. = 400.00'
Engine House
N.Y.C.R.R. MAIN LINE
ST. LAWRENCE DIVISION N.Y.C.R.R.
Existing 48" Brick & Stone Masonry Sewer
Limits of Prop. Culvert Plans
1:2:3 Conc.
12"
4'-0"
NEW CULV.
EXIST. CULV.
EXIST. CULV.
10"
10"
488.63'
0.77%
488.33'
1:2:3 Conc.
6" of Nos. 2 & 3 Gravel under new Constn. if necessary
SHEET NO. 1 OF 2 SHEETS
PLAN FOR RECONSTR. OF A PORTION OF STATE ST. TRUNK SEWER THRU N.Y. CENTRAL RAILROAD PROPERTY.
Hor. as Shown
VER. 1" = 2'
Orig. Date
Nov. 29, 1937
F.M. Dickins
F.M. Dickins
5495
Revised March 2, 1938 to show correct location of State St. Trunk Sewer between Water St. & Mohawk River.
F.M. Dickins.

DASNY

December 27, 2018

Mr. Brian Thomas, A.I.C.P.
Commissioner
City of Utica Department of Economic Development
1 Kennedy Plaza
Utica, New York 13502

Via First Class Mail and Electronic Mail

Re: The City of Utica Planning Board's *State Environmental Quality Review* Draft Environmental Impact Statement Comment Letter for the Mohawk Valley Health System's *Construction of the Integrated Health Campus ("IHC")*, City of Utica, Oneida County, New York

Dear Mr. Thomas:

The Dormitory Authority of the State of New York ("DASNY") is in receipt of the City of Utica Planning Board's ("UPB's") *Draft Environmental Impact Statement ("DEIS")*. DASNY is working with the New York State Department of Health ("NYSDOH") in connection with a grant awarded to Mohawk Valley Health System's ("MVHS") pursuant to the Oneida County Health Care Facility Transformation Program (the "Grant"). The Grant will provide funding for the construction and equipping of the proposed IHC.

DASNY thanks the UPB, as lead agency, for holding the public hearing related to the *DEIS* for the proposed MVHS *Construction of the Integrated Health Campus ("IHC")*. DASNY encourages public input whenever possible in the State Environmental Quality Review ("SEQR") process and exercises the public hearing option for all our projects requiring an *Environmental Impact Statement ("EIS").* DASNY also found the review of the *DEIS* to be comprehensive in its evaluation and analysis assessing the Proposed Project's potential significant adverse environmental impacts.

DASNY reiterates its comment that complete Environmental Site Assessments ("ESAs") should be undertaken for all properties included within the project limits of the proposed IHC. As previously noted in DASNY's Scoping Comments, the historic uses within this former industrial section of the city may have included substances now known to be health hazards, potentially leaving behind toxic residue. Once site control is obtained, any outstanding ESA's should be completed promptly. This will aid in any needed mitigation of construction-related impacts anticipated from soil erosion, site clearing and grading and excavation activities, etc.

DASNY also recommends that MVHS expand upon the DEIS's discussion of the economic- and growth-inducing impacts that are anticipated from the Proposed Project in the final EIS. To this end, the *DEIS* notes that MVHS, along with the Mohawk Valley Economic Development Growth Enterprises Corporation ("Mohawk Valley EDGE"), performed a qualitative and quantitative analysis in August 2017 of the potential economic- and growth-inducing impacts which could result from the IHC development project (*DEIS* page 113). It would be beneficial if the data obtained from that analysis were included within the body of the final *EIS* or appended as an appendix or attachment.

The *DEIS* discussion of growth inducing aspects arising from the IHC development also could be more robustly described, emphasizing the increase of the workforce during construction, the potential development after completion of the Proposed Project, and the economic impact on existing merchants, shops, and restaurants in this area of Utica, as well as in abutting districts, such as the Brewery District.

Additionally, in the final EIS, the analysis in the *DEIS* could expand upon the impact to the greater Oneida County workforce as an outgrowth of the proposed IHC development. The magnitude of this multi-year construction project could include a significant amount of job growth for the immediate project location (Utica) and the greater Utica/Oneida County/Mohawk Valley area.

The IHC would be constructed within a section of the city earmarked for urban renewal, and the proposed hospital facility would be a significant architectural accomplishment, potentially injecting this area of the city with a new, modern centerpiece derived from the architecture of its neighboring buildings and historical past. The design is to be complemented for its treatment of buildings lower levels, or "podium" as it is called in the *DEIS*. The articulation of the podium, or "street" levels, keeps the size of the building on a more human scale and is in keeping the sightlines consistent with the historical context of the original buildings.

The proposed location of the IHC in a designated Federal "Historically Underutilized Business" ("HUB") Zone, could ignite the transformation of a now depressed, formerly thriving portion of the city. While the DEIS references the creation of "the potential for secondary economic development opportunities" a more robust and specific description and analysis of the potential residual growth stemming from the development of this architecturally significant, half-a-billion-dollar construction and urban development project could help define the overall resurgence of this HUB area of the City of Utica.

Thank you again for the ability to comment as an involved agency funding the Proposed Project. All additional project related correspondence or documentation should continue to be submitted to me at: ***Mr. Robert S. Derico, R.A., Acting Director, Office of Environmental Affairs, DASNY, 515 Broadway, Albany, New York 12207-2964*** or via electronic mail at ***rderico@dasny.org*****.**

Respectfully,

Robert S. Derico, R.A.
Acting Director

cc: Michael E. Cusack, Esq. (DASNY)
Sara P. Richards, Esq. (DASNY)
Udo Ammon (NYSDOH)
James P. Lupoli (DASNY)
*SEQR* File
OPRHP File

Lewis

# FAX COVER SHEET

12/27/18

TO: City of Utica Planning Board
Utica NY
C/o Urb.+ Econ. Dev.

FAX #: 315 797 6607

Phone #: option 7 of 315 792 4636

From: Eleanor R Lewis
Boonville NY
Phone/fax: 315 942 2975

# pp. = 2 + this = 3 total

I hope this is still acceptable.
I'm sure there will be people
e-mailing until midnight.
At 4:25 my non-printing fax
machine refused to work until
I changed ink for its printer
[illegible]ation — a major challenge

To: City of Utica
Planning Board

Re: SEQRA re Proposed
Downtown Location
of New Hospital

my typed letter addresses issues of transportation and land use as well as quality of life, which is not stated in this EIS as a specific, but is something that should be considered during this Hospital process.

Eleanor R Lewis
9570 North Pond Rd
Booneville 13309
942-2975

12/27/18

What makes Utica special

I believe I have a unique perspective of the quality of life in Utica. Three years ago, I escaped from 40 years of living in Boulder, Colorado. Arriving in Utica, and experiencing Utica, I found it to be such a major relief from life in Boulder. It has recently occurred to me that long-time Uticans probably just take for granted all the aspects that make life in Utica so PLEASANT and unique and wonderful. These aspects are so fragile and can be so easily destroyed – PLEASE be careful with this major issue of the location of the new hospital.

- generosity, concern for quality of life
- DRIVING is so low key and pleasant
- shopping interactions are low key and pleasant
- businesses, even the locally big ones, project a friendly image and are APPROACHABLE
- Business-association recognition of and AWARDS for business-community donations – monetary but especially of TIME and effort
- the five-second VALUES.COM tv ads, Foundation for a Better Life, I have never seen such ads / sentiments anywhere else in this country (or Europe).
- The Heart Run-walk
- Ride for Missing Children
- Such a haven for so many refugees

40 years ago Boulder was a pleasant reasonable-sized mountaineering Mecca. Then California computer companies moved in many transient non-caring non-mountain people. Boulder is now NASTY and cut-throat, driving plus many other civic attitudes and behaviors. The three-story building-height limitation passed by VOTER APPROVAL in 1970 for preservation of mountain views was recently (2-3 years) overturned by the nine-member CITY COUNCIL. Chain hotels and office buildings are now being built in front of all the decades of construction by principled, law-abiding citizens.

Things like that are happening here. Utica is so wonderful and pleasant and is such a relief from disruptive giant buildings and digital billboard eyesores.

Why would we want to lose our specialness by turning into a carbon copy of other Mohawk Valley towns? WHY would we want to be known for a shiny metal monstrosity blocking access into the city instead of low-key invitation? Please think how much you take for granted all these qualities that I find so new and wonderful, coming from elsewhere. Please appreciate these, and don't lose them.

Eleanor R Lewis

# Public Hearing Transcript

CITY OF UTICA PLANNING BOARD

SEQRA/DRAFT ENVIRONMENTAL IMPACT STATEMENT PUBLIC HEARING

MOHAWK VALLEY HEALTH SYSTEMS PROJECT

* * * * * * * * * * * * * * * * * * * * * * * * * * *

Utica Planning Board Members in Attendance:

FRED MATRULLI
TONY CALON
JOSEPH CARUSO
GEORGE MITCHELL

* * * * * * * * * * * * * * * * * * * * * * * * * * *

Held At: State Office Building
205 Genesee Street
Utica, New York
December 6, 2018

Lisa M. Schuster,
Reporter

MR. MATRULLI: I just want to read a few things to you, explain exactly what this meeting is about and what we're going to do here tonight. Thank you all for coming. The purpose of this hearing is to take comments from the public and involved agencies relative to the draft environmental impact statement or draft, DEIS, for the purpose proposed construction of a hospital in downtown Utica by the Mohawk Valley Health Systems. The draft EIS was prepared by the applicant and was made available to involve any interested agencies, as well as the public via the city's public website. Hard copies have also been available in city hall and the Utica Public Library. As the lead agency, the planning board scheduled this public hearing to solicit public input relative to the draft environmental impact statement. As lead agency, the planning board is interested in receiving your input on the following: The added receipt by which the draft EIS supports the analysis and conclusions reported, the extent to which the EIS -- draft EIS addresses the comparative assessment of a reasonable alternative, the appropriateness by which mitigation measures were analyzed as a reasonable measure to reduce adverse environmental impacts. A final environmental impact statement will be prepared that will account for the relevant substantive comments we receive tonight and through the public commentary which ends on December 27th. I would just like to remind everybody to be respectful of the speakers, if you would. This is a time to provide input. We will not be responding to questions or comments tonight. Subsequent feedback may be used to modify the content of the environmental impact statement. With that being said, we have a sign up sheet here. There's twelve people that have signed up to speak. You will have four minutes to speak. If you have any written material you would like to submit, that also will be obtained. We have a stenographer here who will be transcribing every word that is spoken here. The first speaker -- and we would like you to spell your name when you come up to the podium so that we have it on record properly. Thank you - Alicia Dicks.

FROM THE FLOOR: Excuse me. Before you

start, would you be so kind as to identify yourself by name and who you are?

MR. MATRULLI: Sure. I'm Fred Matrulli, the chairman of the planning. To my right --

MR. CARUSO: I'm Joe Caruso.

MR. COLON: I'm Tony Colon

MR. MITCHELL: I'm George Mitchell.

MS. DICKS: Good evening. I'm Alicia Dicks, A-l-i-c-i-a D-i-c-k-s. I'm president and CEO of the Community Foundation of Herkimer Oneida Counties. Thank you for the opportunity to address the board this evening. As an organization committed to significant and continuing investment that enhances area residents' quality of life, the community foundation supports Mohawk Valley Health System's innovative health campus project. The community foundation has invested in this area's institutional health care providers for decades, and meeting the health care needs of regional residents is one of our continuing strategic priorities. Working with MVHS, the City of Utica, Oneida County and other partners, the community foundation has taken an active role in advancing this unique opportunity to build a community asset for our collective future. MVHS downtown will meet regional health care needs and support and enhance urban connectivity of place making through innovative design. The purposeful investment in our community's urban core through this unprecedented public life project will have a remarkable and long-lasting effect, supporting and sustaining this areas continued economic resurgence. The draft document before you is an important part of the required state's environmental quality review process and we have reviewed it, and in light of the potential issues identified some months ago in the project's scoping document, it is our assessment that the draft EIS thoroughly addresses potential impact and mitigation measures that are required by law. So on behalf of our board of trustees, our staff and our partners, I would like to thank you, the members of the planning board, for your dedication and commitment to this process and the foundation looks forward to a continued progress with the MVHS hospital. Thank you.

MR. MATRULLI: Next, and I apologize for

mispronouncing names, Dan is it Broedel?

MR. BROEDEL: Broedel, yes. My name is Dan Broedel, D-a-n B-r-o-e-d-e-l. I'm the program director for the Midstate Regional Emergency Medical Services Council. I appreciate this opportunity to speak to you. In an emergency, timing is everything. While the treatment specialties divided among the two separate hospitals, quickly navigating the best path of care isn't always an easy task for the more than fifteen hundred emergency medical services providers, the staff of 57 ambulance services. There's a total of 91 ambulances throughout Oneida, Herkimer and Madison County. Right now if we have a patient that has a heart attack and a stroke, which does happen, we have to evaluate which hospital to take them to because St. Elizabeth's is known for its cardiac care and St. Luke's is the designated stroke center. There are many times when these situations develop and we only have a few minutes to decide which hospital. Currently patients who arrive at St. Elizabeth's with a stroke symptom are triaged and transferred to the St. Luke's campus, the area's designated stroke center. On a daily basis, EMS transports while up to 20 patients between the two campuses to ensure that they receive the proper care. With specialty services consolidated at one location, we'll be able to avoid the need for these many patient transfers. Location of the new hospital actually makes it easier for our ambulances as they come from all the directions. Right now all the ambulances kind of go to the south end of the city which makes for a longer trip from those coming north, east or west. Keeping this in mind, I was particularly interested in how traffic would be impacted with the addition of the new hospital downtown. I feel the study fully addressed the impact of the project that the project would have on traffic, as well as the mitigation measures that would be implemented. A complete, comprehensive document was comprised to address this and the other environmental questions with the new hospital project. Thank you very much.

MR. MATRULLI: Next is Kevin Revere.

MR. REVERE: Hello. I'm Kevin Revere, K-e-v-i-n R-e-v-e-r-e. I'm director of emergency services for Oneida County. I would like to thank the planning board and O'Brien and Gere, we've spoken in June and discussed the CSX Railroad tracks and the concern that people had brought up regarding that, as I did also, I done my own examination, but some professionals from O'Brien & Gere and others took a look at the concerns that had been raised regarding the proximity to the proposed hospital to the railroad tracks, and as I suspected, their conclusion was what I concluded also that there really is no concern regarding that. I think you used the term in the report O'Brien & Gere did that it's negligible, the fear of an accident happening close to, I would put it less than that because they did a thorough job. I would like to mention two other things that were talked about in June as one having a designated area in the hospital for victims of rape and sexual assault segregated from the rest of the patients in the emergency room; I hope it is still going to be discussed and included. And the other one was a radio system, we would hope that from an environmental aspect, although somewhat different of an environmental aspect, to make sure that the public safety radios work inside the new hospital because it's a little iffy as they are right now at St. E's and St. Luke's. Thank you.

MR. MATRULLI: Okay. Next is Patrick, is it Becher?

MR. BECHER: Becher.

MR. MATRULLI: Becher.

MR. BECHER: Thank you. Good afternoon. My name is Patrick Becher, B-e-c-h-e-r. My full-time job is with the Mohawk Valley Water Authority, but I want to be clear that tonight I'm hear to speak on behalf of the Greater Utica Chamber of Commerce, for which I currently serve as chair of the board of directors. Since 2015, the Mohawk Valley Health System has coordinated and participated in over 130 meetings with decision makers and stakeholders. These efforts included meetings with more than 40 interested agencies, specific groups and businesses, and The Greater Utica Chamber of Commerce was included in that process. Through this outreach, a very complete review was established with the state environmental quality process. The recently released reactive environmental impact statement represents a major milestone in the development of a new consolidated hospital. The Greater Utica Chamber of Commerce has stated a public position in the past supporting the downtown location, and upon review of the DEIS, we remain confident that our policies and issues was well phrased. We believe in the methodology applied to this review was scientifically sound, factually accurate, extremely comprehensive and was in every aspect conducted in full compliance with all applicable state laws and regulations. Within a fairly wide range, twelve sites were initially identified as meeting the matrix requirements for the new facility. Of those, nine were eliminated for a variety of reasons that were entirely justifiable. Of the three remaining sites, the downtown location, the existing St. Luke's and the state psychiatric center, the downtown site objectively scored the highest based on a wide range of critical criteria. Amongst some of the reasons identified in favor of the downtown site are the following: First the site will require no sewer offset credits. Secondly, the storm water management will be greatly improved with the use of pervious services, it will actually generate less runoff than the current configuration of the split hospitals. The water pressure capacity are very good which is something that I happen to know a little bit about. They will not need a tank for fire storage needs because of the density of the water mains in that area. The downtown site is relatively close to a National Grid substation, from there they can run a dedicated underground cable and provide all the power to the hospital which will provide a very high level of reliability. Street grid is an asset. There are many ways to access and egress into the site. The site is also not immediately adjacent to any kind of a residential neighborhood. The site is also less than two miles from the Thruway, less than a half mile from the north-south Arterial and located along Routes 5 and 5S, which can greatly enhance the access to the facility for emergency services. The downtown location has the benefit of being planned in conjunction with the State DOT Oriskany Street 5S project, so that can all be handled at the same time. The site has high visibility, it really plays I think into a very carefully sustainability to smart road, repurposing of Urban parcels will be able to provide a higher use for that land than exists in most situations. The site will not encroach, as I said, on residential neighborhoods. And finally and perhaps most importantly, this site can be a very important part of a broader downtown revitalization vision. So for all those reasons, the Chamber of Commerce would like to express its endorsement of this draft environmental impact statement, and we commend you on your efforts so far, and we are looking forward to the rest of the project. Thank you very much.

MR. MATRULLI: Next is it Tom Zalocha?

MR. ZALOCHA: Zalocha.

MR. MATRULLI: Zalocha?

MR. ZALOCHA: Tom Zalocha, yes. Z-a-l-o-c-h-a. Good evening. Thank you for allowing me to speak tonight. My name is Tom Zalocha, I'm a union representative for the plumbers and pipefitters. I'm also the area representative for the building and construction trades. Our community has been granted three hundred million dollars to build a state of the art hospital with one stipulation, it must be built in Utica. Other sites were considered but ultimately determined unacceptable. St. Luke's is not within the required location to qualify for grant funding. Utica Psychiatric Center fell short with zoning requirements, accessibility and the relation to existing neighborhoods. With all of this taken into consideration along with the easy accessibility of Route 5S, Route 49 and the north-south Arterial, the downtown site has proven to be our best choice. The main reason for building in downtown Utica, in my opinion, is simply revitalization, progression for a better future for the greater Utica area. Many businesses have vacated the area leaving deteriorating buildings behind. The rebuilding of downtown Utica provides limitless opportunities for growth and development. Developers had already began purchasing buildings with plans for renovation once hospital construction begins. These plans include creating apartment complexes, retail space, and outdoor eating areas. Millennials, young professionals and even empty nesters migrate to cities for entertainment and socialization. This is a strong attraction to cities that have a variety of nightlife accessible by foot. Downtown Utica apartments allow walking access to cities such treasures as the Stanley Theatre, Munson Williams, the Adirondack Bank Center, Varick Street, and all the locally-owned businesses in-between. This hospital does not only benefit the downtown area, but the community as a whole. Our city's residents will have access to the latest achievements in technology, medicine and service with state of the art equipment from specialty doctors and research leaders. This hospital would also provide academic advantages for the local colleges. We have been losing population for many years. Our children are growing up and moving away. I have experienced this firsthand with both of my sons that now live in the Saratoga area. We are finally given the opportunity for financial support to reinvent our area, and yet there are still opposition. This may be our only opportunity to provide our community with the economic growth for future years to come. Thank you.

MR. MATRULLI: Lucretia D. Hunt.

MS. HUNT: Good evening. Everything has been said so eloquently here, that I can't really say any more. You've covered the environment, you've covered everything. Our city is moving forward. What city doesn't have a downtown hospital? Even Cooperstown. Why can't we have one? What is all this nonsense that we have to go through all the time to prove that the hospital has been checked, the environment has been taken care of, the streets, the lights, the water, so we need to move forward. Some of those buildings that are down there have been down there since I was a little girl and that goes a long way. We need changes, we need to move forward. The city is on a roll, and we need to be on a roll for our future, so listen to these learned people before me who have explained about the environment and everything they've checked and let's go forward with the downtown hospital.

MR. MATRULLI: Danielle Gilmore. Daniel. Excuse me.

MR. GILMORE: My name is Daniel Gilmore, G-i-l-m-o-r-e. I'm the environmental health director for the Oneida County Health Department, I've served in that capacity for the past 20 years. My office receives, as an involved agency, approximately two dozen seeker requests per year, this one from the Mohawk Valley Health Systems new hospital is one of them this past year. I have to say that the document that's been prepared, the draft environmental impact statement, is thorough, is well written as any of them that have come across my desk, and I think the hospital will be a benefit to the community. There's still more work that the environmental health code services division has to do in terms of review, but the document that has been prepared has set the stage for well laid plans for the future. Thank you for your time.

MR. MATRULLI: Frank Przybycien.

MR. PRZYBYCIEN: I'm Frank Przybycien, P-r-z-y-b-y-c-i-e-n. I'm representing Genesis tonight. The Genesis Group endorses the environmental impact statement and the medical center releases in the newspaper since the last meeting. We endorse the project because we feel very strongly that it will enhance the medical services for the region. I would like to remind everybody that there may be costs that will go over the budget, and never take shortcuts in the future. The building that we're talking about and the complex, the campus has to be used for the next 60 to 70 years, so it takes us out to the year 2090, and we should do it right for all the reasons that were mentioned earlier. Utica has a rebirth and let's do it right. One of the things that we would like to suggest very strongly is make it pedestrian friendly and to make the connectivity of the two parking garages with the new medical center better than anything we've seen in the past in the downtown area. It should be a four-season connection. It should be a safe connection, well lit. It should also be designed for future transportation methods, because we all know there will be self-driving vehicles and self-driving everything, and make sure that there are no curb cuts and we have a clear path between the two parking garages, Kennedy and the new one for the medical center. The other thing we would like to address that was somewhat addressed in the study is the use of renewable energies. And as the project grows with phases two, three and so on and so forth, to make sure that we have an energy district in downtown Utica that partially, at least, can be off grid in using renewable energies. The one thing that I think is very important is in the near future, the north-south Arterial is the main road to get to the new medical medical center and it has two stoplights on it, Noyes and Oriskany that at times the traffic backs up significantly, and that's also a problem for the existing hospitals. This area that we're talking about does not have a shoulder, so it will impede the speed of any emergency vehicles, and I think addressing the elimination of those traffic signals and a redesign of that area is very important for both this project and all the projects in downtown. Again, I would like to conclude in saying let's make sure that the designs don't take any shortcuts, that we solve the problems that have to be solved, maybe some things have to be put on the back burner to make sure that we do things right in the first place, and to make sure that we're not the last downtown design with 20 century technology but Utica becomes the first downtown designed for the 21st century technologies. Thank you.

MR. MATRULLI: Stephen Keblish.

MR. KEBLISH: Stephen Keblish representing myself. S-t-e-p-h-e-n K-e-b-l-i-s-h. A few concerns I have with the accuracy of the environmental impact statement. The impact of relocating current businesses is obviously unknown at the moment given we don't know that all the businesses are going to relocate either in Utica or in the surrounding region. Until plans are finalized with those businesses, the resulting impact they may have on the environmental is completely unknown at the moment. I recommend that you do not finish the statement until we can at least estimate or know what the impacts of relocating any of those businesses might be. The county's emergency management plan cites hazardous materials in transit as moderate to high hazard, the highest ranking that any potential hazard may have in Oneida County or estimated, at least, and that the hazards that occur most often include the transport of hazardous materials. The mitigation of those kind of risks need to be finalized and a new comprehensive emergency management plan that would project plans and contingencies in case still were to happen within a hospital and not merely just waiting to be a concern that one would have for a transit accident. The impact to residential neighborhoods seems to be completely minimized. The encroachment on a residential neighborhood was cited as a concern in the comparison study for the psych center; however, the fact that people live in or near the downtown site was completely ignored. I think mostly of the Kennedy Plaza residents who at the moment use services within the Columbia and Lafayette district and the mitigation soon to be nonexistent for those concerns. The study does not account for how the psych center was eliminated from the final choices. The choices were narrowed down to St. Luke's and the downtown site without much explanation on why the psych center, which scored higher than St. Luke's, was eliminated. It should also be noted that the St. Luke's site was the highest scoring site for environmental concerns. The increase reliance on fossil fuels that will be subsidized by this plan is also a concern. The primary method of transit projected for the plan is driving, the primary investment in transportation is the parking lots. Cars at the moment still highly rely on fossil fuel, this will not only increase the usage of fossil fuels that driving to downtown would cause, but downtowns themselves are the least reliant on car transportation of any modern living arrangement. I speak versus suburban and rural areas, but the current plan reverses that trend and takes space that is both walkable closely knit, incremental and grandular and creates large swaths of parking area which most people will be left to have to drive past rather than walk past. This shift toward the reliance on fossil fuels I think is also a concern and I would encourage the board to increase their focus on this. That is all. Thank you.

MR. MATRULLI: Brett Truett.

MR. TRUETT: Good evening. My name is Brett Truett, T-r-u-e-t-t, representing myself and also my friends and some of my family on Facebook as we're called hashtag no hospital downtown, which is also a d/b/a that I established in Oneida County, and I placed a hundred thousand dollars into that account, and most of the speakers, other than the one leading me previously, had read from prepared remarks created by a political campaign to build a very large project that makes this community feel like we're progressing. We missed the boat on that now for about 25 years. I'm glad that Danfoss is there, a very respectful company, but they're paying seventeen cents a square foot. This is an unjust investment. There is not a study that says that our current hospitals are inadequate. If you go to Chicago or any other major city that has city hospitals, they can be one or two miles or three miles from the city center and they're called an Urban hospital or a downtown hospital. Every single benchmark that MVHS has presented to our group, myself has been looked at, none of them are comparing with Utica, New York. I am prepared to spend and sell my company to defeat this project. A lot of good people have spoke tonight, people that I sat with on The Chamber of Commerce, the Genesis Group. I can see right through what they're saying. It pains me to have retired from my company three and a half years ago to take this fight up, but when I first came to Utica in 1986, I lived at the Hunter House on the tenth floor of the Hotel Utica. I could see St. John's Church, I walked to Potter School, Globe Mill, Mill Square, I met Frank Giotto, he was starting FIS. He wanted me to go to Germany to be a representative from him, but I decided to work for Union Fork and hoe, a job I knew I had before I had it when interviewing at Globe Mill. I got the job. I loved the company, its no longer going. My company is here ironically in Herkimer. Some people say oh, Brett took his company out of Utica. No. I went where I could find a building that I put a couple hundred thousand dollars into that there are employees that live there and work there, they don't live there, but you could, because they had followed my leadership which is called servant leadership. And I'm a very lucky man, because I don't go into the office but a paycheck arrives in my account and six other people every day and they make a great deal of money. Had it not been for fighting the hospital, I probably could have given out more bonuses. So to the people that have spoke tonight with prepared remarks, I'm ashamed of what you're doing to this community. Show me a study that says our two hospitals, three hospitals and old main cannot service the very poor community that we are. Fix our roads and our sewers and stop tangling up all those projects with a new hospital, it's not being bought by me or no hospital downtown but doctors who said it must be stopped, a message that came to me two days ago. If you printout all the pages on no hospital downtown.com, it may equal the drafting environmental -- draft environmental impact statement, which I have worked tirelessly to populate with information that's factual and to oppose the astroturfing done by MVHS in commercials and internet ads and billboards.

We simply want to put a billboard on the Arterial that says join the battle to save our city.

FROM THE FLOOR: That's four minutes.

MR. TRUETT: And they denied us from putting the ad up. So my more pertinent remarks will be submitted by my attorney. Thank you.

MR. MATRULLI: Next is Shawn Corrigan.

MR. CORRIGAN: Shawn Corrigan, S-h-a-w-n C-o-r-r-i-g-a-n, one of the owners of Wilcor International and the Corrigan family that has been supporting Utica, building Utica for four generations now, maybe five, I've lost track, you know, who started the whole thing, built our business in Utica and have owned four buildings, okay, that have housed our business and our downtown showroom, 333 Lafayette Street is, you know, alive and well and doing great business helping the community. I don't know if you guys all know it, but there's thousands of people that come into Utica just because of Wilcor International. Okay? We drive the economy here. Wilcor being forced out of downtown Utica, that kind of ends our whole plan that New York State is a place to be. We do not need to be here. We service all of USA. Okay? We have a really good group of employees that work for us, and we bring a lot of good dollars to Utica. Local businesses that do services for our company, you know, if you ask for those records, you would be astounded the money that our customers bring in to support restaurants, hotels, businesses in and around the area. It's quite incredible. We have not been given a choice and we have not been given what we need to even look elsewhere at this point. We're totally in limbo, and you know, that's not where a business can be and grow. So then you say okay, do we really need to be here at all? So our impact will be great. Leaving the State of New York, okay, will be a big detriment, because Wilcor International services seven thousand retailers across America out of, you know, a small family that thought it was important to devote our lives to this business and we felt Utica, New York, the base of the Adirondacks, you know, was the perfect place for us to be. Downtown Utica where we're located is the location where we are, completes the fully walkable downtown, and that's what we've been trying to get across as the beginning of this project came on to the onset with the BUD group, better Utica downtown, is that that area will finish downtown Utica. The effort that we put into the hospital having to be there, okay, has stopped all of that. So downtown Utica will never be finished for a fully walkable downtown, okay, that tourists can stop off the Thruway and say, hey, guess what, we're going to walk around Utica, we're going to love Utica, we're going to come back and maybe some day we're going to live in Utica because we love it so much. The downtown hospital is not going to give any of those people the feeling they should come to live there, they're not going to spend their tourist money there because there's a downtown hospital. We can finish it off, we can put the hospital in one of the great locations that were brought up otherwise, it will be a win win situation. I feel there's a lot of people that are going to say no, we're not going to let it happen, we're sorry Corrigan family, we're sorry Wilcor

International, you can leave New York State, you can take, you know, and let your employees go to somebody else and start a new business elsewhere. We will not go away from what we're doing, but we will leave the State of New York if this is what is forced upon us, if we cannot get options that are workable for our company, okay, there are great options across America for us. Thank you very much.

MR. MATRULLI: Michael Lehman.

MR. LEHMAN: Good evening. Michael Lehman, M-i-c-h-a-e-l L-e-h-m-a-n. I'm an Utican and I come back there after recently returned to the area after moving away for college as a career where I was fortunate enough to gain a wider world perspective of seeing what folks do in the rest of the world. I'm also trained as an architect and a planner so I'm more familiar with the average person with issues involved in planning and design process for the proposed downtown hospital. In reviewing the draft environmental impact statement, I'm struck by several key issues. Ironically many of the questions which are to be addressed by the speaker process in the previously aspect concerned MVHS stakeholders. It is reprehensible that the supporters of the downtown site have inaccurately portrayed those who dare to question the decisions made by MVHS as a negative naysayers and antiprogressives. This thirty-five hundred page draft statement deals with many complex, independent, technical, social economic, demographic and cultural issues. Many consultants employed should be noted by MVHS experts in their very specialized fields and contributed in most cases using only information provided by MVHS; therefore a possible bias in favor of the MVHS interest is unavoidable. The board is tasked with reviewing the answers provided by MVHS, discussing them and then qualify each one as substantial, not substantial or is not applicable. Given the incomplete, inaccurate, misleading information provided by MVHS, the PageGroup, their PR firm, and the limited supporters in the past, the board should focus specifically on the accuracy, completeness and objectivity of information provided by MVHS and direct their consultants through the evaluation of chapters dealing with aesthetic resources, historic and archeological resources as pertaining to community care and the short and long-term costs associated with the proposed action. This evaluation is especially important with the conjecture and speculation not to be viewed as fact to date this has not been the case. All MVHS has identified that all of their health care -- health care goals have been identified and actually the previous speakers have listed can be accomplished at the main campus at St. Luke's. There appears to be no compelling reasons to look at a new hospital downtown other than the speculative conjecture that it may contribute to economic revitalization. There is no factual evidence that this will in fact occur, in fact the proposal has resulted in expansion plans by several businesses and the footprint being put on hold and at least one taxpaying business leaving the area. I think Mr. Corrigan spoke to that with his family business. Using the MVHS created site and lecture rating point system some deficiencies identified is the reason for disqualifying many of the twelve advantage sites were also present at the select proposed downtown site. It is not clear if the weighing of the material was done in an objective manner and in the best long-term interest of the community in which MVHS serves. Many of the costs associated with the proposed downtown site has yet to be identified by the other people you spoke to, this is problematic as to these additional costs are typically born by the taxpayers. The St. Luke's site was identified by MVHS as an acceptable second alternative if the proposed downtown site proved financially unfeasible, which it has. The public is expected to cover the cost of the parking garage, infrastructure upgrading and expansion to our lost tax revenue and a cost proposed amounting to the main proceeding of the property as well. Many of the design goals presented by MVHS in November 2017 have not been incorporated into the current site plan. Site planning that was directed by the previous speaker is not an integrator providing he cannot speak as an architect urban designer; having the training in that area, it does not provide creative site making, it'S basically a suburban scheme with acres of parking surrounding it being shoehorned into an Urban site and basically destroying any potential for economic development that may happen there in an organic manner similar to what is happening in the rest of the city.

FROM THE FLOOR: That's four minutes.

MR. LEHMAN: Thank you for your time.

MR. MATRULLI: Donna Beckett.

MS. BECKETT: Hello. My name is Donna Beckett, B-e-c-k-e-t-t. And first of all, I'm going to say that I'm really not happy to be here, so I just want to get that out of my body. So I will read off what I had written earlier, and then I'm going to add some things because of what I've heard. The document that has been provided to you is not based on truthfulness or real things. The hospital operatives, the politicians, the attorneys can make an outcome appear a certain way. In the SEQRA process, you are the checks and the balances, and why do you think that you were recommended to do it? The Utica planning board, you are citizens, individuals, you're not urban planners, architects, engineers. So anyway, let me go on. Just because the SEQRA allows for the public comment, what good will it do? I have to say that I'm happy to see that all of you really have been paying attention tonight, maybe more so than I had seen before, so that's good to see. If you continue to go along with city hall and others in this messy mix, what hold do they have over you? Your name and your reputation and your so-called connections may be affected by your appointment on the planning board. Okay. So that's what I wrote earlier. The other thing now I want to mention are you heard a lot of opinions and some of them have not been accurate. One man mentioned about it has to be downtown, it doesn't. I'm sure that you've had a chance to look over the legislature, it doesn't say downtown, it doesn't say Utica, it doesn't say the city. Not only that, but part of the proof is that they originally moved the twelve sites in the ten miles and they narrowed it down to three of them, one of them being St. Luke's, so therefore it right off the bat shows, and also the environmental impact statement shows that that's the fact that St. Luke's even it definitely would fall into the category of being a Oneida County transformation. The other thing that somebody mentioned about state of the art equipment. It will not have state of the art equipment. It's a new building, it could be all the same old equipment. The other part is that from day one, remember August 2015, this became public, not because of the hospital or the politicians, but because three board members from the hospital individually called Jim Brock. Jim, they're trying to place this downtown, you've got to help us. Jim Brock gets in touch with Brett Truett. We want -- the position of no hospital downtown is yes, we want a new hospital but at the St. Luke's campus, 64 acres. Besides what -- we have from day in the first year they refused to answer the question. From day one we said can you just show us your studies, your reports? We understand this is early, we understand that it's not complete, you have to answer some questions. No. The beginning of it was no, we are a private nonprofit, we technically don't have to disclose our plans. That changed because the input was you're not being transparent, so -- then it became well, it's too early in the process, then -- okay. January 2017, okay, the hospital held their first forum, I was there for both sessions. I had been in it 15 months by that point. So after the 45-minute PowerPoint by Scott Perra, fine. It was very controlled, you couldn't ask a question. I did raise my hand and he agreed he knew me, Donna, he let me speak and I stood up. I just said, I've heard 45 minutes about PowerPoint, I've heard several inaccurate misleading statements just now, and if anybody would like to know what they are, please see me at the break and sat down. So now they have continued. It has continued. So that's all. Thank you.

MR. MATRULLI: Richard Bause.

MR. BAUSE: Good evening. My name is Richard Bause. I represent myself, B-a-u-s-e. I've been in Utica for all my life, all my 56 years. I have known a lot of the history in relation to the area, also with the historical society for 35 years now. Downtown I've seen a lot of the pictures that a local photographer had taken, a lot of aerial shots of what this whole entire downtown area was. How many people in this room can raise their hand and remember that there was a traffic circle through Whitesboro Street, anybody? There was. To put the hospital downtown will be a big mistake. One is that you have a lot of environmental issues, you have a lot of old infrastructure. You're going to be tearing down the police department maintenance garage for which my dad also was a policeman for 15 years, that is a fairly new building, that doesn't make any sense. You're going to rebuild the parking garage that the city and the county have been going back and forth over, that doesn't make any sense. St. Luke's campus up there with 64 acres of land, if you were to take and just put the parking garages in one corner, move all the parking into there during construction, you can simply take and do the entire hospital on the footprint of that area. There's a reason why there's a big sign out there called the birthplace, I believe it's one of the state of the art neonatal units for the babies. Also you have three, four-lane highways coming right at your front door.

What's wrong with this picture? It's something we aught to ask ourselves. You got all that upgraded infrastructure, you got a state of the art power plant there providing power to the hospital and steam but also supplying the same thing to Utica College. Some of that danger I have not seen printed of what these facts are. And all they've said is that in the study they had three main places to take a look at: St. Luke's, downtown Utica and Utica Psychiatric. It's a shame that Utica Psychiatric - I grew up in west Utica over on Capital Ave and saw the deterioration of the big building, not the main building, but the Brigham building in the back, it never exists, it's totally empty. I wish we can all get together and come to a consensus on as many things that do make sense, because a lot of this does not, and come on out and say we need five hundred million dollars for this or two million dollars for that and then come on out and say, oh, gee, we just got a price increase of a hundred some odd million dollars for the steel to building it. Okay, who's going to eat that cost? When you say you're going to build something for five hundred million dollars, let's see where the money goes. If you cannot sit there and estimate how much money you're going to need for materials that you're going to need, you shouldn't be building it. My background is in construction, all phrases, residential, commercial and industrial, also in highway construction, and I see it go on and on and on, and it's not fair to John Q. taxpayer on this. Put it in place up there at St. Luke's, it's got 64 acres, you need to do a little environmental remediation for wetland, use it, use the land up there. Don't go tearing down the city. People haven't really looked at what happens when you have the auditorium totally full for a hockey game, you're going to put a sports complex over to the other side in that particular area. What happens if you have a mass casualty at the same time, where is everybody going to congregate? You're going to get totally stuck right in one little spot. That's wrong. That's the wrong place to put it. Put it up at St. Luke's. Thank you. It's a shame that the Corrigans will have to leave. They're very nice people, they brought a lot of money to this area, and I'll agree eminent domain on private business by nonprofit, just the taste of it is just not there, that's wrong. Thank you.

MR. MATRULLI: Karen Corrigan.

MS. CORRIGAN: Hi, I'm Karen Corrigan, K-a-r-e-n C-o-r-r-i-g-a-n. I don't have any notes. I know I've spoke before on several of these, and I'm just basically going to speak from the heart because I know that you guys have all heard it before and I don't feel that I ever gotten answers or anybody else has ever gotten answers to the questions of why does the taxpayers have to pick this up? Okay. Why do the taxpayers have to pick up the parking garage? You're talking about a hospital that's going to provide services to the people of this area whether they are in downtown Utica or whether there at St. Luke's. Why do they -- why do they have to put this unfair burden on the taxpayers of Utica? Now on the other end, I understand why the city planners would like to see that area of downtown fixed up, because it's been blighted for a long time, but until recently, until exactly about six months before the hospital announced they were going to be there, about six months before that my brothers and I sat in the showroom and we were saying, wow, this is great. Bagg Square is fixed up, Varick Street is fixing up, things are going on, we're going to be able to do something in this area, and there was other businesses that were thinking that, too. Empire Bath moved out in Marcy was absolutely wonderful. There was several people that thought that, hey, this is great, we can start doing something in our city, and then six months later the hospital comes out, they make the announcement down here that they're going to go, and as they sit there, they don't want to talk to anybody, there's no conversation, there's no question and answer, there is this is where it's going to be and you're going to have to move and it's tough, and that's been the attitude from day one. It's extremely disturbing. Okay? You guys are the planning board and you should think a little bit about this, because this business community that's down there could have helped to make the auditorium situation that we got going on with the Comets and the games and the businesses around there start to grow, those places that the city owns people would have picked up. I mean, I assume that you're going to give them to the hospital anyhow, and I would think there's a ton of people in the City of Utica that would have been more than willing to make a living for their family, okay, because no more people are going to be employed by the hospital, it's the same amount of people, maybe less because they're consolidating. I mean, don't we want our community to grow, and don't we want to tell the hospital that, yes, we want you, we want you here, we want you to grow, we want you to be a part of our community, but be a part of our community and allow our people of the community to grow, too. I mean, people want to provide for their families. Why are we taking these businesses out of there, not only the businesses that are there, the businesses that could have been, and why are we not letting people take these places over so that we can build? We have a great foundation and all of a sudden we're going to stop right in the middle of that and say, sorry, we don't want to do anything else there, we want to put a hospital there. People are going to go to the hospital no matter where it is, because that's what we have to do. And another question, is it the three hundred million we're not going to get, is that the question? I never really got a straight answer. I understood by reading the legislation that we could get the three hundred million if it was in the St. Luke's campus, they still could get that to do it, I didn't see how that made a difference. And I know somebody said well, it had to be Utica. Well, if that's the case when in Frankfort there - why can't I think of it - the Mason's. The Mason's, the Masonic Home, you know, they had to come to an agreement to get the money for that place, and they could certainly do the same thing over there. I think we need -- I just really would like to hear the planning board to ask the hospital to be reasonable and to answer these questions, and why are they forcing it down our community to say there could be no other place, we're not going to do it any other place, and I don't care about the people that want to have a business and grow their families. And you know what, if Wilcor leaves, like Shawn said, we'll survive, but the problem is, you know what, the City of Utica, there's so many people in that area, so many people that day-to-day would like to make a better living for their family that could have and would have if you guys chose to give them the chance. And I really, I hope and I pray every day that that's what's going to happen. Sorry.

MR. MATRULLI: The was the last speaker that is signed up. I just want to reiterate that the final environmental impact statement will be prepared and it will account for the relevant substantive comments we receive tonight and through the public comment period which ends on December 27th. So any written comments or things that come up during the month, you know, salable facts that you think will impact this statement, please feel free to bring them forward. Sir?

FROM THE FLOOR: Can I speak? I didn't bother putting my name on the list.

MR. MATRULLI: Yes, you can.

MR. MCFARLAND: I appreciate it. Jay

McFarland, M-c-F-a-r-l-a-n-d. I wasn't going to speak tonight, but I just told George as we were coming in I had the pleasure of using these hospitals in the last, in fact it was Tuesday, had a procedure done. I'm partially on drugs right now, so please bear with me. I was told not to go out tonight, but I said it was very important for me to be here. The first question they asked me at both these hospitals I was at, one, St. Elizabeth's two days ago, and I was over in St. Luke's the other day. The first question they asked me, where's your driver? They didn't ask anything else. I've had good service at both places. The staff is fantastic. I don't think we need a hospital downtown. I don't want to have my houses on Hawthorn Ave to be devaluated and pay taxes the rest of my life. I don't know how much more I've got to live. It's just that I don't want to pay taxes on it. My children do not want the houses that I do have. They say I'm putting too much money into them, too much work. My son always tells me you're spending my inheritance on the houses. And I said -- my daughter is an occupational therapist, she is not in this area. She cannot get a job in this area. She's in Hershey Medical Center. The area -- I've gotten -- my daughter is 26 years old making a fine living down there in Hershey, she will not make it up here. She has a house that she has here, she doesn't even want it. So if the planning board is thinking these millennials or all these people -- and the other thing, when I was in surgery, my wife did not go to any local restaurants, she stayed right there with me, she did not go buy groceries, she did not buy any cup of coffee at any restaurants, she stayed right with me. It is not the economic impact. She did not do anything outside of the hospitals. She drove me back home. She didn't buy anything, we didn't go to eat afterwards either after I had my surgery. But, I mean, this downtown does not make sense. The only thing down there that would make sense would be a transportation museum so that people can walk around downtown Utica, but that's the way it is. But you can find pleasures, St. Luke's did a nice job with me. And I hope across well because my nose is dripping because of this stupid nose and I hope

I can come across expressly. Thank you for letting me speak, I appreciate it.

MS. MARTIN: Katie Martin, K-a-t-i-e M-a-r-t-i-n. I wasn't going to speak tonight either, but then I heard a lot of comments that was in favor of the hospital speaking on behalf of the millennials and young entrepreneurs and professionals. But I just wanted to add as being one, I'm 28 years old. We opened up our coffee shop in downtown Utica about a year ago and to think of 25 acres of downtown of potential places to grow, for livelihood, music, restaurants, cafe to be demolished for a health care facility, that's not what we're looking for. I moved out of state, moved back because we wanted to be here, and it's one of the biggest obstacles that it's just really frustrating of how this will impact local businesses. If it's going to happen to the Corrigans, what's to say it's not going to happen to us. It's an ongoing frustration and we're not the only young couple minded business thinking this. I haven't gotten through the draft all the way in its entirety yet, I question how many people in here have. I just wanted to add one piece of -- a quote came to mind as I was reading it from Edward Tufte: "Confusion and clutter are the failure of design, not attributes of information." That quote seems to resinate an ongoing theme with much of this downtown proposal that they believe. And I guess one other person mentioned would we even have a downtown hospital, and a quick study will show you that thousands don't and the majority actually don't, and what we do have is driving retail restaurants, cafes and music and that's what millennials are looking for. Please take that into consideration. Thank you.

MR. MATRULLI: Does anyone else care to speak? I want to thank everybody for all the comments. I think there was some very comprehensive information that surfaced tonight and it definitely will be taken into account. So just a reminder that any written documents that you would like to submit need to be in before December 27th, and that will be very helpful obviously and would impact the final statement. I want to thank everybody for coming tonight, and with that we can make the motion.

MR. MITCHELL: I'll make the motion to adjourn.

MR. COLON: Second.

MR. MATRULLI: Thank you everybody.

( Whereupon, the hearing concluded )

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C E R T I F I C A T E

I, **LISA M. SCHUSTER**, a Shorthand Reporter and Notary Public in and for the State of New York, DO HEREBY CERTIFY that the foregoing is a true and accurate transcript of my stenographic notes in the above-entitled matter.

Dated: January 3, 2019.

_________________________

Lisa M. Schuster

# OPRHP Letter of Resolution (LOR)

**LETTER OF RESOLUTION**
**AMONG**
**THE DORMITORY AUTHORITY STATE OF NEW YORK AND**
**THE NEW YORK STATE OFFICE OF PARKS, RECREATION AND HISTORIC PRESERVATION AND**
**MOHAWK VALLEY HEALTH SYSTEMS**

**WHEREAS,** Mohawk Valley Health Systems ("Applicant") is proposing to construct a new regional hospital to replace two existing outdated inpatient facilities: Faxton-St. Luke's Healthcare and St. Elizabeth's Medical Center (the "Hospital"), together with surface parking and a parking garage ("Parking Areas" and together with the Hospital, the "Project");

**WHEREAS,** the Dormitory Authority of the State of New York ("DASNY") will be working with the New York State Department of Health ("DOH") to administer a grant awarded under Section 2825-b of the Public Health Law to the Applicant for the purpose of creating the Project,

**WHEREAS,** DASNY recognizes its responsibilities pursuant to Article 14 of New York State Parks, Recreation and Historic Preservation law ("PRHPL") to avoid, minimize or mitigate adverse impacts to historic resources and/or archaeological sites ("Historic Properties"), to the fullest extent practicable consistent with other provisions of the law;

**WHEREAS,** OPRHP has reviewed the preliminary scope of the Project provided by O'Brien & Gere and submitted to OPRHP via their Cultural Resource Information System ("CRIS") on October 3, 2016, including the proposed Project Impact Area ("PIA");

**WHEREAS**, the PIA includes areas upon which the Hospital and the Parking Areas will be constructed;

**WHEREAS**, the PIA includes approximately 55 properties (80 tax map parcels) in the City of Utica, which are expected to be acquired by either negotiated sale or eminent domain;

**WHEREAS,** OPRHP has identified several Historic Properties that are listed in the New York State and National Registers of Historic Places or appear to be eligible for inclusion in the Registers (See attached Appendix A);

**WHEREAS,** OPRHP has also identified several areas that warrant additional assessment for archaeological potential and are potentially eligible for the Registers based on preliminary analysis as outlined in the SHPO Consultation Materials, dated April 2018, and submitted by O'Brien & Gere;

**WHEREAS,** it has been determined that one or more of the identified Historic Properties will be directly impacted during the development of this undertaking;

**WHEREAS,** such impacts are defined under 9 NYCRR Part 428.7 as constituting an Adverse Impact to Historic Properties;

**WHEREAS,** the parties acknowledge that the full extent of the potential impacts cannot be ascertained at this time, since the Applicant does not currently own all of the parcels comprising the PIA;

**WHEREAS,** the parties have determined that it is desirous to progress with the certain pre-construction activities concurrent with efforts to secure the parcels within the PIA;

**WHEREAS,** the parties agree that ongoing consultation, in accordance with PRHPL Section 14.09 and its implementing regulations at 9 NYCRR Part 428, will explore alternatives that would avoid or minimize impacts to identified historic/archaeological resources within the PIA;

**WHEREAS,** all parties agree that if reasonable and prudent alternatives that might avoid direct and indirect impacts to yet to be identified resources cannot be found, that appropriate mitigation measures will be developed to offset any loss to Historic resource;

**NOW THEREFORE,** DASNY, OPRHP and the Applicant agree that DASNY's Section 14.09 responsibilities will be addressed by implementing the following stipulations, which are intended to take into account the impacts of the Project on known and as of yet unknown Historic resources.

## I. STIPULATIONS

DASNY along with Mohawk Valley Health Systems will insure that the following measures are implemented:

BUILDINGS

- As soon as practicable, the Applicant will commence a complete assessment of buildings it currently controls that are listed in Appendix A and proposed for removal.

- Upon site control of the remaining buildings, the Applicant will commence a complete assessment of the remaining buildings listed in Appendix A.

- This assessment will include photographs of exterior and interior conditions. Sufficient (10 to 20) images should be prepared to provide OPRHP with a general understanding of the state of the resource. These images, along with a written assessment of the general condition of the building, will be submitted to OPRHP via the CRIS program.

ARCHAEOLOGY

- Archaeological testing, as previously requested by OPRHP in their letter to O'Brien & Gere dated June 18, 2018, will commence once the Applicant obtains site control. Reports associated with the testing must be filed with OPRHP in a timely manner and must meet NYS Archaeological Standards.

- No ground disturbing activities in the PIA will commence until all archaeological testing has been completed at each identified site and the results of the testing have been reviewed by OPRHP. Notwithstanding the above, the parties acknowledge and agree that MVHS will be allowed to perform certain environmental testing and engineering surveys (borings) as needed on properties MVHS or the City of Utica control within the PIA.

- Unanticipated discoveries, including the discovery of human remains during construction, will follow the protocol outlined in Appendix C.

TREATMENT MEASURES (BUILDINGS)

In accordance with Section 14.09, efforts that would avoid or minimize impacts to historic buildings should be explored and documented. An alternatives analysis relating to the disposition of historic buildings in the PIA must be submitted to OPRHP for review and comment prior to any activity on the site that might damage the resources. This analysis should explore the following opportunities:

- The parties expressly agree that buildings located within the footprint of the hospital building and parking garage structure will not be retained. If appropriate and agreed upon, salvageable, architecturally significant features of the removed buildings (*i.e.*: building name panels, significant intact architectural elements, *etc.*) will be incorporated into the new structure or hospital site.

- Avoidance: To the extent practicable, efforts to avoid the removal or direct impacts to buildings identified as historic (Appendix A) and located outside of the footprint of the Hospital and Parking Garage will be explored. Documentation outlining this exploration of alternatives will be provided to OPRHP prior to any action that would directly impact the involved resource(s).

- Minimization: If practicable, efforts that would include options to lessen the overall, as of yet to be fully documented, impacts to historic resources located outside of the hospital building and parking structure footprints will need to be explored. This assessment should include a discussion of the potential retention of *some* of the historic resources as part of the development planning and mitigation.

- Mitigation Options: Where it has been determined by the parties that *some or all* of the historic resources must be removed from the PIA, the following mitigation measures may be applied:

    1. Exploration of the potential reuse of existing structures located outside of the hospital building and parking structure's footprints, deemed retainable and adaptable for a productive hospital-associated use, provided sufficient resources to complete the project remain.

    2. Where buildings cannot be retained the Applicant will follow OPRHP's standard resource documentation process outlined in Appendix B.

    3. Other appropriate mitigation for the loss of historic resources as agreed to by the parties (*i.e.*: reuse of building name panels, significant intact architectural elements, *etc.*) will be incorporated into the new structure or hospital site creating historic linkage and homage to the history of this portion of the City of Utica.

## II. DURATION

This Letter of Resolution (LOR) will expire if its terms are not carried out within five (5) years from the date of its execution. Prior to such time, DASNY may consult with the other signatories to reconsider the terms of the LOR and amend it in accordance with Stipulation IV below.

Should any, as-of-yet determined resources be identified, OPRHP would make determinations of significance and any mitigation measures would be developed by DASNY, after consultation among MVHS, OPRHP, and DASNY, and would be based on the characteristics and significance of the resource. Any mitigation measures would be conducted pursuant to the Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in

New York State, prepared by the New York Archaeological Council and adopted by OPRHP (1994).

## III. DISPUTE RESOLUTION

Should any signatory to this LOR object at any time to any actions proposed or the manner in which the terms of this LOR are being implemented, DASNY shall consult with OPRHP to resolve the objection.

## IV. AMENDMENTS

This agreement may be amended when such an amendment is agreed to in writing by all signatories. The amendment will be effective on the date a copy is signed by all the signatories.

The following staffs (or their designees) are primary contacts for the parties:
**DASNY Contact:**

Robert S. Derico, R.A.
Acting Director, Office of Environmental Affairs and Agency Preservation Officer
DASNY
515 Broadway
Albany, New York 12207-2964
rderico@dasny.org
(518) 257-3214

**OPRHP Contact:**
John Bonafide
Director, Technical Preservation Services Bureau/OPRHP Agency Preservation Officer
Division for Historic Preservation
PO Box 189, Waterford, NY 12188-0189
john.bonafide@parks.ny.gov
(518) 268-2166

**MVHS Contact:**

Robert C. Scholefield, MS RN
Executive Vice President/ Chief Operating Officer
Mohawk Valley Health System
2209 Genesee Street
Utica, New York 13501
bscholef@mvhealthsystem.org
(315) 801-4978

## V. TERMINATION

If any signatory to this LOR determines that its terms will not or cannot be carried out, that party shall immediately consult with the other signatories to attempt to develop an amendment per Stipulation IV, above. If, within a time-period agreed to by all signatories, an amendment cannot be reached, any signatory may terminate the LOR upon written notification to the other signatories in accordance with *9 N.Y.C.R.R.* §428.10(d).

## VI. CONCLUSION

At the conclusion of the Project, DASNY shall certify in writing to OPRHP that the undertaking has been completed in accordance with this LOR.

## VII. COUNTERPARTS; ELECTRONIC SIGNATURES; SUCESSORS OR ASSIGNS:

This LOR consists of six (6) pages plus APPENDICIES A-C. It shall be signed and acknowledged in four original counterparts and shall take effect on the date it is signed by the last signatory. The counterparts (including counterparts delivered to the other parties by facsimile, e-mail or other electronic means) taken together shall form one legal instrument. A manually or electronically signed copy of this LOR delivered by facsimile, e-mail or other means of electronic transmission shall be deemed to have the same legal effect as delivery of an original signed copy of the LOR. FOB and/or NYRA shall ensure that this LOR is complied with by their successors or assigns.

## VIII. LIST OF APPENDICIES

APPENDIX A: List of identified historic resources within the Project Impact Area
APPENDIX B: Historic Resource Documentation Format
APPENDIX C: Human Remains Discovery Protocol & Unanticipated discoveries

SIGNATURES (3 Pages)

SIGNATURES (1 of 3)

DORMITORY AUTHORITY OF THE STATE OF NEW YORK

_________________________________ Date: 1·9·19

Robert Derico, RA
Acting Director, Office of Environmental Affairs and Agency Preservation Officer

SIGNATURES (2 of 3)

NYS OFFICE OF PARKS RECREATION AND HISTORIC PRESERVATION

Michael F. Lynch _________________________ Date: 1/10/19

Michael F. Lynch, AIA, PE
Director, Division for Historic Preservation

SIGNATURES (3 of 3)

MOHAWK VALLEY HEALTH SYSTEMS

Robert C. Scholefield, MS RN
Executive Vice President/ Chief Operating Officer

Date: 1/8/19

**APPENDIX A**
**List of identified historic resources within the Project Impact Area**

| USN | Property Name | Address | Status |
|---|---|---|---|
| 06540.000101 | Former Utica & Mohawk Valley Railway Car Barn/Electric Express/Girrard Chevrolet Service Garage | 300 Lafayette Street | Eligible |
| 06540.002096 | Jones Building | 336 Columbia Street | Eligible |
| 06540.001489 | C. & AJ Eichmeyer House (1907) | 444 Lafayette Street | Eligible |
| 06540.001490 | S Isele House (1907) | 442 Lafayette Street | Eligible |
| 06540.002107 | Witzenberger Building | 460-464 Columbia Street | Eligible |
| 06540.001491 | L Snyder House | 440 Lafayette Street | Eligible |
| 06540.001555 | Utica Turn Hall/Utica Turn Verein | 509 Lafayette Street | Eligible |
| 06540.002119 | | 437 Lafayette Street | Eligible |
| 06540.002095 | Haberer Building | 326-334 Columbia Street | Eligible |
| 06540.002114 | Childs Building | 333 Lafayette Street | Eligible |
| 06540.002010 | Brick Commercial (Downtown Genesee Street Historic District) | 301 Columbia Street | Listed |
| 06540.002011 | Brick Commercial (Downtown Genesee Street Historic District) | 401 Columbia Street | Listed |

**APPENDIX B**
**Historic Resource Documentation**

The buildings will be documented prior to their demolition using the following format:

Photographs

- Photographs submitted as documentation should be clear, well-composed, and provide an accurate visual representation of each building and any significant features. Submit as many photographs as needed to depict the current condition and significant features of each building, both exterior and interior (where safely accessible).
- Digital photographs should be taken using a ten (10) mega pixel or greater digital camera.
- Images should be saved in Tag Image File (TIFF) format. This allows for the best image resolution. RGB color digital TIFFs are preferred.
- Several historic images (if available) depicting the facility should be included in the documentation.
- Images should be named or labeled with the building name, photo direction and date.

**Historic Narrative**
A brief narrative history pertaining to development and construction of the building(s) and the development of the neighborhood should be provided with the photos, to the extent it is known. Historic period documentation, *if available,* should also be included.

**Report**
The final report (including images and a PDF version of the Historic Narrative) should be saved on digital media (CD, DVD, or USB thumb drive) and submitted to the OPRHP's Division for Historic Preservation.

The documentation package must be prepared and submitted no later than 6-month post demolition of the resources.

**APPENDIX C**

**Human Remains Discovery Protocol**

In the event that human remains are encountered during construction or archaeological investigations, the New York State Historic Preservation Office ("SHPO") recommends that the following protocol is implemented:

- At all times human remains must be treated with the utmost dignity and respect. Should human remains be encountered work in the general area of the discovery will stop immediately and the location will be immediately secured and protected from damage and disturbance.

- Human remains or associated artifacts will be left in place and not disturbed. No skeletal remains or materials associated with the remains will be collected or removed until appropriate consultation has taken place and a plan of action has been developed.

- The county coroner/medical examiner, local law enforcement, the SHPO, DASNY, and the appropriate Indian Nations will be notified immediately. The coroner and local law enforcement will make the official ruling on the nature of the remains, being either forensic or archaeological.

- If human remains are determined to be Native American, the remains will be left in place and protected from further disturbance until a plan for their avoidance or removal can be generated. Please note that avoidance is the preferred choice of the SHPO and the Indian Nations. The involved agency will consult SHPO and appropriate Indian Nations to develop a plan of action that is consistent with the Native American Graves Protection and Repatriation Act (NAGPRA) guidance.

- If human remains are determined to be non-Native American, the remains will be left in place and protected from further disturbance until a plan for their avoidance or removal can be generated. Please note that avoidance is the preferred choice of the SHPO. Consultation with the SHPO and other appropriate parties will be required to determine a plan of action.

**Unanticipated Discoveries**

Although archaeological resources are not expected to exist in your project area, unanticipated discoveries may occur. If during ground-disturbing activities artifacts and/or structural remains that appear to be of Native American or pre-modern (i.e. early 20$^{th}$ Century or earlier) origin are exposed, OPRHP/SHPO recommend that the following procedures be carried out.

If the discovery includes human remains or other indications of human interment, please follow our Human Remains Discovery Protocol.

If the discovery does not appear to include human remains or other indications of human interment, please do the following.

- Suspend activities in the vicinity of the discovery and protect it from any further disturbance.
- Notify OPRHP and DASNY regarding the discovery, digital photographs which can be transmitted electronically would be very helpful.
- OPRHP will then make a determination whether the discovery warrants additional examination and, if so, will recommend what should be done next.

# Traffic Impact Study Addendum

MVHS

# Mohawk Valley Health System

## Utica, New York

# Integrated Health Campus Traffic Impact Study - Addendum

Prepared by:
C&S Companies

March 2019

# Table of Contents

# Section 1—Addendum Introduction

*This document serves as an Addendum to the Mohawk Valley Health System (MVHS) Traffic Impact Study (TIS) for the Integrated Health Campus (IHC) Project dated October 2018. The original TIS was included as part of the Draft Environmental Impact Statement (DEIS) and this Addendum includes additional information, revised tables, figures, and analyses, and revised recommended mitigation based on comments provided during the public comment period. Only sections that require additional or revised information is included in this Addendum, with very specific changes to note shown in italics. All other information would be taken from the original TIS.*

## 1.1 Project Description

## 1.2 Study Area

For the purposes of the TIS, the study area incorporates all the intersections to be analyzed and defines the limits of any additional evaluations such as on-street parking impacts or accident analyses. Study area limits were defined based on discussions with the New York State Department of Transportation (NYSDOT) Region 2 and includes the following intersections (see **Revised Figure 1.2**):

1. *NYS Route 5/8/12 NB ramps at Court Street*
2. State Street & NYS Routes 5/8/12 off/on-ramp
3. State Street & Lafayette Street
4. State Street & Columbia Street
5. State Street & Court Street
6. Cornelia Street & Oriskany Street
7. Cornelia Street & Lafayette Street
8. Cornelia Street & Columbia Street
9. Cornelia Street & Court Street
10. Broadway & Oriskany/Liberty Street
11. Broadway & Lafayette Street
12. Broadway & Columbia Street
13. Broadway & Court Street
14. Washington Street & Liberty Street
15. Washington Street & Oriskany Street
16. Washington Street & Lafayette Street
17. Seneca Street & Liberty Street
18. Seneca Street & Oriskany Street
19. Seneca Street & Lafayette Street
20. Genesee Street & Liberty Street
21. Genesee Street & Oriskany Street
22. Genesee Street & Lafayette/Bleecker Street
23. Genesee Street & Columbia/Elizabeth Street
24. Genesee Street SB off-ramp & Whitesboro Street
25. Genesee Street & Blandina Street
26. Genesee Street & Bank Place
27. Genesee Street & Court Street

## 1.3 Methodology

The methodology used to determine the impacts of the traffic generated by the proposed development was discussed and accepted by the NYSDOT, Region 2. Several traffic conditions or scenarios were established and considered for the study intersections. The traffic conditions considered in this report are as follows:

- Existing (2018) traffic conditions during the typical AM and PM peak commuter periods
- Future (2022) no-build traffic conditions during the typical AM and PM peak commuter periods
- Future (2022) build traffic conditions during the typical AM and PM peak commuter periods
- Future (2022) mitigated traffic conditions during the typical AM and PM peak commuter periods, if necessary
- *Separate NYS Route 5S corridor analysis during the typical AM and PM peak commuter periods to determine potential mitigation specific to the NYS Route 5S corridor (as per NYSDOT requirement)*

The no-build condition includes the proposed geometric and traffic control changes for NYS Route 5S that are currently being constructed as well as a growth of existing traffic to account for other unknown development in the area through 2022. Provided by the NYSDOT, a 1% growth rate is used to estimate no-build condition volumes for 2022.

*Adjacent to the proposed site to the north, the Utica Memorial Auditorium (the AUD) is a multi-purpose arena and home to the Utica Comets of the American Hockey League. A planned expansion to the AUD including the proposed NEXUS Center will include three additional rinks/fields, lockers rooms, office space, classroom space, retail, food and beverage services, and other training space. The NEXUS Center is expected to be developed to the east of the AUD up to Broadway by 2020. Based on conversations with the NYSDOT and the Upper Mohawk Valley Memorial Auditorium Authority (August 2018), current and future events at the AUD/NEXUS Center typically do not impact commuter peak periods. Therefore, traffic generated during AUD events or potential traffic generated by the AUD expansion and NEXUS Center during off-peak periods are not included in this study. This study does include additional traffic anticipated to be generated by the AUD expansion/NEXUS Center during typical peak periods, specifically the PM peak period, for ice/field practice time and employees as part of the future no-build analysis since it is expected to be complete and operational by 2020.*

The future build condition includes the additional traffic anticipated to be generated due to the proposed development and any changes in traffic patterns associated with building access, roadway closures, or access to proposed parking facilities. Based on the results of the analysis of traffic operations for the future build condition, the mitigated condition contains any changes to lane configurations, signal timing and phasing, or any other changes to the roadway network or proposed development plan necessary to mitigate impacts to traffic operations.

*The separate analysis required by the NYSDOT is based on their analysis conducted for the design of the NYS Route 5S project. As part of that design process, they analyzed existing and future conditions along the corridor based on volumes they developed in 2015. Those volumes, compiled using data from 2012 and 2015, were higher than those counted as part of this effort in 2018. They noted this was due to the fact that* *the 2012 data was collected prior to a number of significant past and current construction projects in the area and that any volumes collected on the NYS Route 5S corridor since then may not account for traffic that has redistributed to avoid construction and that may come back to the corridor when all construction efforts, including the IHC, are complete. It is NYSDOT's opinion that their NYS Route 5S through volumes should be used to determine any potential impacts or required mitigation on this corridor to be conservative. Based on their direction, the separate analysis includes the following:*

- *NYS Route 5S 2019 build condition (NYS Routes 5S project complete but no IHC project traffic) mainline through volumes will replace the NYS Route 5S 2022 build condition mainline through volumes from this analysis*
- *The signal timing/phasing and offsets for NYS Route 5S 2019 build condition model will be optimized to ensure optimum operational results for the corridor with a focus on minimal delays for the NYS Route 5S mainline traffic*
- *The side street approach volumes and the estimated traffic from the IHC project on the NYS Route 5S mainline from the 2022 build condition volumes from this analysis will be added to the NYS Route 5S 2019 build mainline through volumes*
- *The results of the analysis of this NYSDOT special condition will be compared to the results of the optimized 2019 build condition model from the NYS Route 5S conducted by NYSDOT*

*Any proposed mitigation noted for the NYS Route 5S corridor and any of its side street approaches will be noted from this analysis.*

The effect of the IHC Project on the adjacent roadway network was measured by comparing the operations of the study intersections to operations that are typically considered acceptable. The study intersections were analyzed using SYNCHRO 10[1], a computer program that implements the methods presented in the Highway Capacity Manual. SYNCHRO determines the level of service (LOS), which is defined in terms of delay, as well as anticipated queue lengths.

The LOS for both signalized and unsignalized intersections are defined in terms of control delay. Control delay is a measure of the total travel time lost and includes slowing delay, stopped delay, queue move-up time, and start-up lost time. LOS thresholds are defined as average delay in seconds per vehicles over a fifteen-minute analysis period and range from LOS A to F for both signalized and unsignalized intersections. An overall intersection LOS D or better is generally considered acceptable at a signalized intersection. An overall intersection LOS E or better is generally considered acceptable at an unsignalized intersection. The following table provides a summary of the LOS thresholds as defined in the HCM 2010.

[1] SYNCHRO 10, Traffic Signal Coordination Software, Version 10.1, Trafficware LLC, Albany, California, 1993-2017.

**Table 1.1—Intersection Level of Service Criteria**

| Level of Service (LOS) | Signalized Intersections | Unsignalized Intersections |
|---|---|---|
| | Delay (sec) | Delay (sec) |
| A | 0-10 | 0-10 |
| B | > 10-20 | > 10-15 |
| C | > 20-35 | > 15-25 |
| D | > 35-55 | > 25-35 |
| E | > 55-80 | > 35-50 |
| F | over 80 | over 50 |

Source: HCM 2010, Chapters 18/19

The TIS also includes an accident history for the study area and a parking supply and demand analysis associated with the proposed development.


**MOHAWK VALLEY HEALTH SYSTEM**

**TRAFFIC IMPACT STUDY**

**STUDY AREA INTERSECTIONS**

(AERIAL FROM GOOGLE EARTH, IMAGERY DATE 10/2/17)

NOT TO SCALE

REVISED FIGURE 1.2

# Section 2—Existing Conditions

## 2.1 Roadway Network

## 2.2 Traffic Volumes

Intersection turning movement counts were collected during typical AM (7am – 9 am) and PM (4pm – 6pm) peak commuter travel periods at the study intersections on July 18th and 19th, 2018. While peak hours for individual intersections varied, the overall study peak hours were determined to be from 7:45am – 8:45am and 4pm – 5pm. Typically, traffic volume data is collected when local schools are in session. *Based on comments regarding the validity of the traffic data collected in July, additional counts were taken at three different intersections throughout the study area to compare to the July 2018 data. AM peak hour counts were collected on January 15th at the intersections of Broadway and Oriskany/Liberty Street, State Street and Court Street, and Cornelia Street and Lafayette Street. There were no weather events, schools were in session, and no construction was occurring throughout the study area that impeded traffic flow. Based on this comparison, it was determined that the original count data was valid and an adjustment to the July volumes was not necessary. See* ***Revised Appendix A*** *for the January 2019 count data.*

*The remainder of the Court Street interchange with NYS Route 5/8/12 was added to the existing condition volumes at the request of the NYSDOT. The NYSDOT provided volume information for the projected interchange that was developed during the design of that project that was used to estimate current AM and PM peak hour volumes for the portions of the interchange not collected in July 2018. The revised existing AM and PM peak hour volumes for the study area intersections are shown on* ***Revised Figure 2.2****. The revised existing conditions volume diagram also includes a change to the AM peak hour eastbound arterial ramp approach to Cornelia Street that was missing a digit (previously shown as 28, but the correct volume is 280).*

The highest pedestrian volumes were noted along the Genesee Street intersections as well as Columbia Street at Cornelia Street and State Street. There were very few bicyclists observed during the peak hours. The existing AM and PM peak hour pedestrian volumes for the study area intersections are shown on **Figure 2.3**. The crossing volumes that are circled indicate the lack of pedestrian accommodations at that crossing location.

*The existing turning movement count data sheets are included in* ***Revised Appendix A****.*

## 2.3 Level of Service Analysis

A capacity analysis was performed for the study area using the existing condition traffic volumes with existing roadway and intersection geometry information. *The existing conditions analysis was updated to include the remainder of the Court Street interchange with NYS Route 5/8/12, a revision to the signal timing and phasing for the intersections of State Street with the On/Off-ramps, Lafayette Street, and Columbia Street based on information provided by the NYSDOT, a revision to the* *signal timing and phasing for the intersection of Genesee Street and Bank Place to include an existing pedestrian phase that was not originally included in the analysis, and the updated eastbound arterial ramp approach to Cornelia Street volume during the AM peak hour.* Starting on page 2-15, **Revised Table 2.1** shows the existing condition level of service (LOS), delay in seconds, volume to capacity ratio, and 95$^{th}$ percentile queues[2] for each lane group of each study intersection.

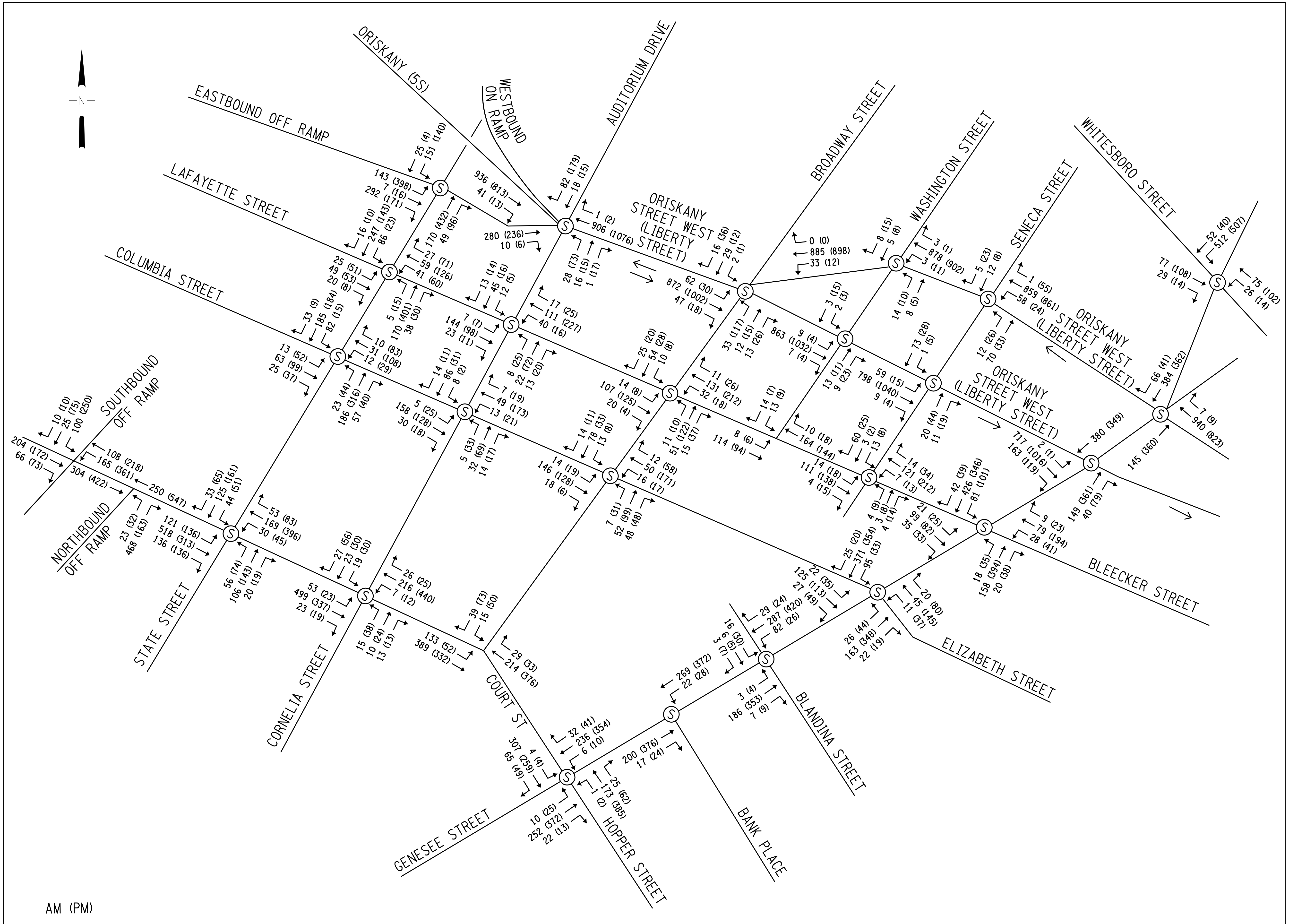
Each of the study intersections operate at a LOS C or better during the peak hours. There are a few movements at some intersections that operate at a LOS E or F as noted below:

- 6 – Cornelia Street & Oriskany Street (PM)
  - Northbound LT/THRU/RT = LOS F (96.2 sec)
- 17 – Seneca Street & Liberty Street (AM)
  - Northbound LT/THRU/RT = LOS E (38.2 sec)

*The revised existing condition model reports are included in the* ***Revised Appendix B****.*

## 2.4 Accident Analysis

[2] "The **95th-percentile queue** is defined to be the queue length that has only a 5% probability of being exceeded during the analysis time period. It is a useful parameter for determining the appropriate length of turn pockets, but it is not typical of what an average driver would experience."
https://www.hcmguide.com/Case1/popup_terms/95_percentile_queue.htm




REVISED FIGURE 2.2

C&S COMPANIES

NOT TO SCALE

# EXISTING (2018) PEAK HOUR VOLUMES

MOHAWK VALLEY HEALTH SYSTEM
TRAFFIC IMPACT STUDY

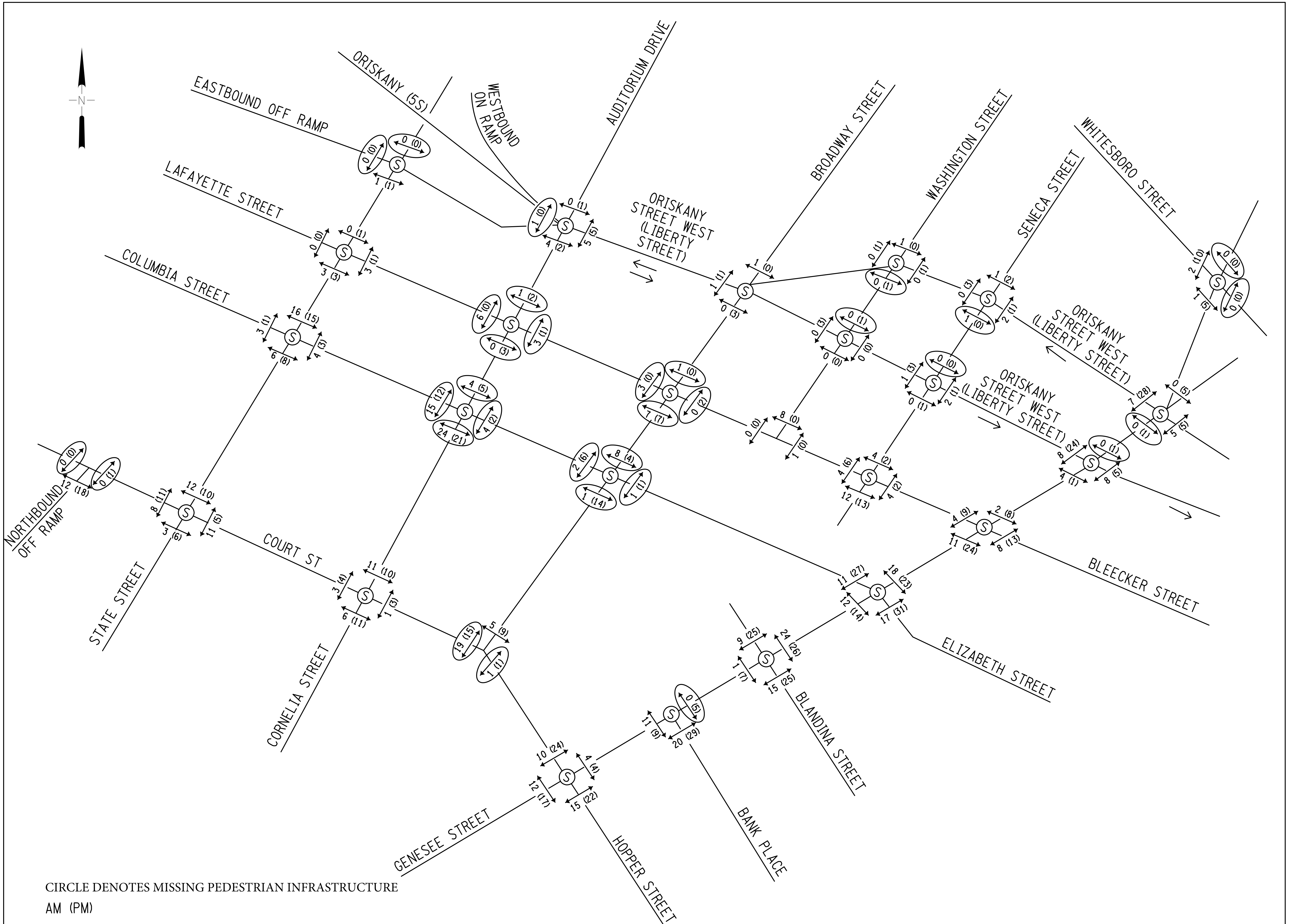



FIGURE 2.3

C&S COMPANIES

NOT TO SCALE

EXISTING (2018)
PEAK HOUR PEDESTRIAN VOLUMES

MOHAWK VALLEY
HEALTH SYSTEM
TRAFFIC IMPACT STUDY

**Revised Table 2.1—Existing Capacity Analysis Results**

| | | AM Peak Hour | | | PM Peak Hour | | |
|---|---|---|---|---|---|---|---|
| | | **LOS (delay in sec)** | **v/c Ratio** | **95th % Queue (ft)** | **LOS (delay in sec)** | **v/c Ratio** | **95th % Queue (ft)** |
| 1 - NB Off-Ramp & Court Street | | | | | | | |
| Eastbound | THRU | A (5.2) | 0.19 | 4 | B (10.3) | 0.27 | 62 |
| Westbound | THRU | B (10.3) | 0.10 | 38 | A (6.6) | 0.19 | 54 |
| Northbound | LT | C (33.7) | 0.09 | 36 | D (38.9) | 0.17 | 48 |
| | RT | A (1.3) | 0.31 | 14 | D (44.8) | 0.55 | 93 |
| *Average Intersection LOS (delay in sec)* | | *A (5.3)* | | | *B (14.2)* | | |
| 1A - SB On-Ramp & Court Street | | | | | | | |
| Eastbound | THRU | C (22.4) | 0.20 | 76 | C (24.0) | 0.17 | 71 |
| | RT | A (0.4) | 0.11 | 0 | A (0.4) | 0.13 | 0 |
| Westbound | LT | C (29.0) | 0.46 | 28 | D (42.5) | 0.66 | 117 |
| | THRU | A (1.7) | 0.08 | 4 | A (1.4) | 0.16 | 7 |
| Southbound | LT | D (36.5) | 0.30 | 28 | D (45.4) | 0.65 | 117 |
| | THRU | C (34.8) | 0.14 | 13 | D (40.9) | 0.36 | 87 |
| | RT | A (0.1) | 0.03 | 0 | A (0.2) | 0.03 | 0 |
| *Average Intersection LOS (delay in sec)* | | *C (20.8)* | | | *C (29.5)* | | |
| 2 - State Street & On/Off-Ramp | | | | | | | |
| Eastbound | LT/THRU/RT | B (13.4) | 0.74 | 117 | D (40.7) | 0.92 | #453 |
| Northbound | THRU | A (9.9) | 0.23 | 79 | B (11.4) | 0.51 | 106 |
| | RT | A (4.0) | 0.08 | 17 | A (1.2) | 0.12 | 8 |
| Southbound | LT/THRU | B (12.7) | 0.39 | 95 | B (18.4) | 0.45 | 100 |
| *Average Intersection LOS (delay in sec)* | | *B (12.0)* | | | *C (25.1)* | | |
| 3 - State Street & Lafayette Street | | | | | | | |
| Eastbound | LT/THRU/RT | B (13.5) | 0.30 | 43 | C (25.3) | 0.41 | 80 |
| Westbound | LT/THRU/RT | B (15.8) | 0.43 | 55 | C (31.6) | 0.70 | 160 |
| Northbound | LT | A (5.2) | 0.01 | 4 | A (5.7) | 0.02 | m7 |
| | THRU/RT | A (5.2) | 0.20 | 53 | A (7.2) | 0.41 | 122 |
| Southbound | LT | A (5.8) | 0.12 | 29 | B (13.3) | 0.05 | m13 |
| | THRU/RT | A (5.8) | 0.24 | 70 | B (13.2) | 0.14 | m98 |
| *Average Intersection LOS (delay in sec)* | | *A (8.2)* | | | *B (16.6)* | | |
| 4 - State Street & Columbia Street | | | | | | | |
| Eastbound | LT/THRU/RT | B (15.5) | 0.39 | 46 | D (39.4) | 0.75 | 128 |
| Westbound | LT/THRU/RT | B (13.9) | 0.23 | 29 | C (30.6) | 0.70 | 130 |
| Northbound | LT | A (5.0) | 0.03 | 11 | A (7.5) | 0.07 | 26 |
| | THRU/RT | A (4.9) | 0.23 | 59 | A (8.7) | 0.36 | 159 |
| Southbound | LT | A (5.5) | 0.12 | 27 | A (4.5) | 0.03 | m8 |
| | THRU/RT | A (5.0) | 0.20 | 55 | A (4.4) | 0.19 | 54 |
| *Average Intersection LOS (delay in sec)* | | *A (7.2)* | | | *B (18.2)* | | |
| 5 - State Street & Court Street | | | | | | | |
| Eastbound | LT | B (17.2) | 0.24 | 80 | B (12.0) | 0.31 | 82 |
| | THRU/RT | C (26.7) | 0.47 | 245 | B (13.4) | 0.30 | 100 |
| Westbound | LT | B (10.7) | 0.10 | 21 | A (9.5) | 0.10 | 27 |
| | THRU/RT | B (14.5) | 0.19 | 61 | B (18.7) | 0.37 | 151 |
| Northbound | LT | C (20.1) | 0.15 | 51 | C (24.6) | 0.26 | 71 |
| | THRU/RT | B (18.7) | 0.22 | 88 | C (22.7) | 0.29 | 124 |
| Southbound | LT | B (19.5) | 0.11 | 41 | C (22.5) | 0.15 | 51 |
| | THRU/RT | B (19.2) | 0.28 | 107 | C (23.2) | 0.41 | 164 |
| *Average Intersection LOS (delay in sec)* | | *C (21.6)* | | | *B (17.9)* | | |
| 6 - Cornelia Street & Oriskany Street | | | | | | | |
| Eastbound | THRU/RT | C (22.5) | 0.45 | 220 | C (21.6) | 0.59 | 300 |
| Westbound | THRU/RT | A (4.7) | 0.37 | 149 | B (10.7) | 0.47 | 336 |
| Northbound | LT/THRU/RT | D (48.1) | 0.45 | 57 | **F (96.2)** | 0.91 | #156 |
| Southbound | LT/THRU/RT | B (18.9) | 0.51 | 51 | C (22.7) | 0.6 | 116 |
| Northeast bound | THRU/RT | D (43.3) | 0.33 | 50 | D (44.4) | 0.76 | 197 |
| *Average Intersection LOS (delay in sec)* | | *B (18.5)* | | | *C (22.3)* | | |
| 7 - Cornelia Street & Lafayette Street | | | | | | | |
| Eastbound | LT/THRU/RT | A (9.2) | 0.23 | 65 | A (8.6) | 0.15 | 44 |
| Westbound | LT/THRU/RT | A (9.7) | 0.25 | 66 | B (10.7) | 0.35 | 99 |
| Northbound | LT/THRU/RT | A (9.3) | 0.08 | 24 | B (11.2) | 0.20 | 52 |
| Southbound | LT/THRU/RT | B (10.7) | 0.14 | 36 | A (8.7) | 0.06 | 19 |
| *Average Intersection LOS (delay in sec)* | | *A (9.6)* | | | *B (10.2)* | | |

**Table 2.1—Existing Capacity Analysis Results cont.**

| | | AM Peak Hour | | | PM Peak Hour | | |
|---|---|---|---|---|---|---|---|
| | | LOS (delay in sec) | v/c Ratio | 95th % Queue (ft) | LOS (delay in sec) | v/c Ratio | 95th % Queue (ft) |
| 8 - Cornelia Street & Columbia Street | | | | | | | |
| Eastbound | LT/THRU/RT | B (11.7) | 0.30 | 82 | B (12.3) | 0.31 | 74 |
| Westbound | LT/THRU/RT | B (10.3) | 0.12 | 34 | B (13.3) | 0.38 | 92 |
| Northbound | LT/THRU/RT | A (8.5) | 0.09 | 25 | B (10.7) | 0.21 | 51 |
| Southbound | LT/THRU/RT | B (10.1) | 0.17 | 48 | A (8.8) | 0.08 | 22 |
| *Average Intersection LOS (delay in sec)* | | *B (10.7)* | | | *B (12.1)* | | |
| 9 - Cornelia Street & Court Street | | | | | | | |
| Eastbound | LT/THRU/RT | B (19.2) | 0.54 | 157 | B (16.8) | 0.37 | 99 |
| Westbound | LT/THRU/RT | B (14.6) | 0.23 | 64 | B (17.7) | 0.45 | 124 |
| Northbound | LT | A (8.8) | 0.02 | 12 | A (9.2) | 0.07 | 23 |
| | THRU/RT | A (5.9) | 0.03 | 13 | A (6.6) | 0.05 | 18 |
| Southbound | LT | A (8.9) | 0.03 | 14 | A (9.1) | 0.05 | 19 |
| | THRU/RT | A (5.5) | 0.07 | 21 | A (4.5) | 0.11 | 26 |
| *Average Intersection LOS (delay in sec)* | | *B (16.5)* | | | *B (15.3)* | | |
| 10 - Broadway & Oriskany/Liberty Street | | | | | | | |
| Eastbound | LT | A (1.8) | 0.14 | 2 | A (1.4) | 0.08 | m3 |
| | THRU/RT | A (6.4) | 0.46 | 289 | A (5.1) | 0.57 | 89 |
| Westbound | LT | A (4.4) | 0.03 | m19 | A (7.0) | 0.01 | m11 |
| | THRU/RT | A (8.7) | 0.38 | 266 | A (9.5) | 0.42 | 263 |
| Northbound | LT/THRU/RT | A (7.9) | 0.30 | 21 | C (32.0) | 0.69 | 103 |
| Southbound | LT/THRU/RT | C (31.0) | 0.30 | 49 | B (15.9) | 0.22 | 36 |
| *Average Intersection LOS (delay in sec)* | | *A (7.9)* | | | *A (9.3)* | | |
| 11 - Broadway & Lafayette Street | | | | | | | |
| Eastbound | LT/THRU/RT | A (7.9) | 0.19 | 52 | A (9.1) | 0.22 | 53 |
| Westbound | LT/THRU/RT | A (9.3) | 0.25 | 68 | B (10.9) | 0.40 | 97 |
| Northbound | LT/THRU/RT | B (12.9) | 0.16 | 43 | B (16.1) | 0.39 | 86 |
| Southbound | LT/THRU/RT | B (12.2) | 0.19 | 46 | B (10.9) | 0.14 | 30 |
| *Average Intersection LOS (delay in sec)* | | *A (10.0)* | | | *B (11.9)* | | |
| 12 - Broadway & Columbia Street | | | | | | | |
| Eastbound | LT/THRU/RT | A (6.4) | 0.22 | 51 | A (6.7) | 0.21 | 45 |
| Westbound | LT/THRU/RT | A (7.8) | 0.10 | 45 | A (6.8) | 0.33 | 63 |
| Northbound | LT/THRU/RT | B (11.0) | 0.24 | 44 | B (17.0) | 0.46 | 83 |
| Southbound | LT/THRU/RT | B (15.0) | 0.26 | 57 | B (13.0) | 0.14 | 30 |
| *Average Intersection LOS (delay in sec)* | | *A (9.6)* | | | *B (10.2)* | | |
| 13 - Broadway & Court Street | | | | | | | |
| Eastbound | LT/THRU | a (8.2) | 0.119 | 20 | a (8.6) | 0.058 | 20 |
| Westbound | THRU/RT | n/a | n/a | n/a | n/a | n/a | n/a |
| Southbound | LT/RT | b (12.7) | 0.117 | 20 | c (16.3) | 0.32 | 40 |
| *Average Intersection LOS (delay in sec)* | | *n/a* | | | *n/a* | | |
| 14 - Washington Street & Liberty Street | | | | | | | |
| Westbound | LT/THRU/RT | C (25.6) | 0.55 | 333 | C (25.9) | 0.50 | 338 |
| Northbound | LT/THRU | A (7.1) | 0.06 | m5 | A (6.5) | 0.03 | m4 |
| Southbound | THRU/RT | B (12.8) | 0.04 | 12 | B (10.3) | 0.05 | 18 |
| *Average Intersection LOS (delay in sec)* | | *C (25.0)* | | | *C (25.2)* | | |
| 15 - Washington Street & Oriskany Street | | | | | | | |
| Eastbound | LT/THRU/RT | C (30.5) | 0.65 | 87 | D (35.5) | 0.66 | 160 |
| Northbound | THRU/RT | B (14.2) | 0.05 | 21 | A (9.5) | 0.07 | 21 |
| Southbound | LT/THRU | B (17.6) | 0.01 | m6 | C (22.4) | 0.03 | m18 |
| *Average Intersection LOS (delay in sec)* | | *C (30.0)* | | | *C (34.4)* | | |
| 16 - Washington Street & Lafayette Street | | | | | | | |
| Eastbound | LT/THRU | a (7.7) | 0.006 | 0 | a (7.7) | 0.006 | 0 |
| Westbound | THRU/RT | n/a | n/a | n/a | n/a | n/a | n/a |
| Southbound | LT/RT | a (9.9) | 0.038 | 20 | b (10.3) | 0.029 | 20 |
| *Average Intersection LOS (delay in sec)* | | *n/a* | | | *n/a* | | |
| 17 - Seneca Street & Liberty Street | | | | | | | |
| Westbound | LT | n/a | n/a | n/a | n/a | n/a | n/a |
| | THRU/RT | n/a | n/a | n/a | n/a | n/a | n/a |
| Northbound | LT/THRU | **e (38.2)** | 0.484 | 60 | c (21.6) | 0.229 | 20 |
| Southbound | THRU/RT | c (22.8) | 0.092 | 20 | b (14.8) | 0.084 | 20 |
| *Average Intersection LOS (delay in sec)* | | *n/a* | | | *n/a* | | |
| 18 - Seneca Street & Oriskany Street | | | | | | | |
| Eastbound | LT/THRU/RT | n/a | n/a | n/a | n/a | n/a | n/a |
| Northbound | THRU/RT | c (19.1) | 0.119 | 20 | d (25.7) | 0.279 | 40 |
| Southbound | LT/THRU | d (28.2) | 0.348 | 40 | d (25.6) | 0.167 | 20 |
| *Average Intersection LOS (delay in sec)* | | *n/a* | | | *n/a* | | |

**Table 2.1—Existing Capacity Analysis Results cont.**

| | | AM Peak Hour | | | PM Peak Hour | | |
|---|---|---|---|---|---|---|---|
| | | LOS (delay in sec) | v/c Ratio | 95th % Queue (ft) | LOS (delay in sec) | v/c Ratio | 95th % Queue (ft) |
| 19 - Seneca Street & Lafayette Street | | | | | | | |
| Eastbound | LT/THRU/RT | a (7.5) | 0.01 | 0 | a (7.8) | 0.015 | 0 |
| Westbound | LT/THRU/RT | a (7.4) | 0.005 | 0 | a (7.6) | 0.01 | 0 |
| Northbound | LT/THRU/RT | b (10.4) | 0.017 | 20 | b (11.4) | 0.057 | 20 |
| Southbound | LT/THRU/RT | a (9.8) | 0.095 | 20 | b (10.8) | 0.058 | 20 |
| *Average Intersection LOS (delay in sec)* | | | *n/a* | | | *n/a* | |
| 20 - Genesee Street & Liberty Street | | | | | | | |
| Westbound | THRU/RT | B (12.2) | 0.40 | 172 | B (10.3) | 0.32 | 129 |
| Northbound | THRU | A (6.5) | 0.15 | 8 | B (12.8) | 0.45 | 35 |
| Southbound | THRU/RT | B (14.3) | 0.48 | 39 | A (3.8) | 0.36 | 8 |
| Southwest bound | THRU/RT | C (34.4) | 0.60 | 133 | C (34.1) | 0.54 | 124 |
| *Average Intersection LOS (delay in sec)* | | | *B (16.9)* | | | *B (13.8)* | |
| 21 - Genesee Street & Oriskany Street | | | | | | | |
| Eastbound | THRU/RT | C (24.3) | 0.29 | 158 | C (20.3) | 0.37 | 179 |
| Northbound | THRU | B (14.7) | 0.20 | 44 | C (23.3) | 0.48 | 124 |
| Southbound | THRU | A (6.2) | 0.42 | 12 | A (6.6) | 0.41 | 12 |
| *Average Intersection LOS (delay in sec)* | | | *B (18.3)* | | | *B (18.5)* | |
| 22 - Genesee Street & Lafayette/Bleecker Street | | | | | | | |
| Eastbound | LT/THRU/RT | D (37.3) | 0.46 | 161 | B (19.7) | 0.34 | 95 |
| Westbound | LT/THRU/RT | D (36.9) | 0.36 | 127 | C (28.6) | 0.62 | 188 |
| Northbound | LT/THRU/RT | B (14.4) | 0.11 | 65 | A (5.6) | 0.32 | 52 |
| Southbound | LT/THRU/RT | B (10.5) | 0.33 | 124 | B (10.0) | 0.40 | 97 |
| *Average Intersection LOS (delay in sec)* | | | *B (18.4)* | | | *B (13.1)* | |
| 23 - Genesee Street & Columbia/Elizabeth Street | | | | | | | |
| Eastbound | LT/THRU/RT | D (37.3) | 0.48 | 185 | B (15.9) | 0.34 | 110 |
| Westbound | LT/THRU/RT | C (28.1) | 0.23 | 77 | B (16.9) | 0.44 | 145 |
| Northbound | LT/THRU/RT | B (10.3) | 0.16 | 62 | B (15.3) | 0.39 | 114 |
| Southbound | LT/THRU/RT | B (10.2) | 0.36 | 103 | B (10.5) | 0.36 | 53 |
| *Average Intersection LOS (delay in sec)* | | | *B (16.6)* | | | *B (14.2)* | |
| 24 - Genesee Street SB Off-Ramp & Whitesboro Street | | | | | | | |
| Southeast bound | THRU/RT | B (10.2) | 0.12 | 26 | A (9.9) | 0.12 | 27 |
| Northwest bound | LT | B (13.8) | 0.06 | 22 | B (11.6) | 0.03 | 13 |
| | THRU | B (13.9) | 0.17 | 48 | B (11.8) | 0.18 | 52 |
| Southwest bound | LT | A (7.9) | 0.53 | 225 | A (7.8) | 0.48 | 216 |
| | THRU/RT | A (4.8) | 0.06 | 23 | A (5.5) | 0.04 | 20 |
| *Average Intersection LOS (delay in sec)* | | | *A (8.8)* | | | *A (8.6)* | |
| 25 - Genesee Street & Blandina Street | | | | | | | |
| Southbound | LT/THRU/RT | D (49.2) | 0.24 | 45 | C (30.5) | 0.27 | 46 |
| Northeast bound | LT/THRU/RT | A (1.2) | 0.08 | 12 | A (2.0) | 0.15 | 33 |
| Southwest bound | LT/THRU/RT | A (4.4) | 0.18 | 97 | A (1.0) | 0.19 | 17 |
| *Average Intersection LOS (delay in sec)* | | | *A (5.1)* | | | *A (5.0)* | |
| 26 - Genesee Street & Bank Place | | | | | | | |
| Northeast bound | LT/THRU/RT | A (0.8) | 0.07 | 13 | A (0.1) | 0.13 | 0 |
| Southwest bound | LT/THRU/RT | A (0.2) | 0.10 | 0 | A (0.1) | 0.13 | 0 |
| *Average Intersection LOS (delay in sec)* | | | *A (0.1)* | | | *A (0.1)* | |
| 27 - Genesee Street & Court Street | | | | | | | |
| Southeast bound | LT/THRU/RT | C (33.9) | 0.46 | 165 | B (12.3) | 0.23 | 71 |
| Northwest bound | LT/THRU/RT | C (30.6) | 0.24 | 90 | B (13.8) | 0.33 | 105 |
| Northeast bound | LT/THRU/RT | A (8.7) | 0.16 | 62 | B (15.5) | 0.35 | 106 |
| Southwest bound | LT/THRU/RT | A (8.2) | 0.16 | 77 | B (14.7) | 0.34 | 100 |
| *Average Intersection LOS (delay in sec)* | | | *C (20.8)* | | | *B (14.2)* | |

X - signalized intersection LOS
x- unsignalized intersection LOS
n/a - no conflicting movement, therefore no delays

m - volume for 95th % queue is metered by upstream signal
# - 95th % volume exceeds capacity, queue may be longer

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# Section 3—Future No-Build Condition

## 3.1 NYS Route 5S Project

## 3.2 AUD Expansion/NEXUS Center Project

*Adjacent to the proposed site to the north, the Utica Memorial Auditorium (the AUD) is a multi-purpose arena and home to the Utica Comets of the American Hockey League. A planned expansion to the AUD including the proposed NEXUS Center will include three additional rinks/fields, lockers rooms, office space, classroom space, retail, food and beverage services, and other training space. The NEXUS Center is expected to be developed to the east of the AUD up to Broadway by 2020. While it is anticipated that most of the traffic generated by the expansion will be generated off-peak for weekend tournaments, it is anticipated that employees and those using the rinks/fields for practice will be generating traffic during typical commuter peak periods.*

*The 10th Edition of the Institute of Transportation Engineer's Trip Generation Manual was used to estimate the traffic that will be generated by the AUD Expansion/NEXUS Center project during the typical weekday AM and PM peak hours. Using land use code 465 – Ice Skating Rinks and the fact that the project includes the construction of three additional rinks, it is estimated that there will be no additional traffic during the typical commuter AM peak hour and an additional 135 vehicles during the PM peak hour. See* ***Revised Appendix E*** *for more trip generation information.*

*This traffic was distributed throughout the study based on the regional trip distribution noted in Section 4.4 and directed to what is expected to be a new parking facility developed as part of the AUD Expansion/NEXUS Center project on Whitesboro Street opposite Broadway.*

## 3.3 Future No-Build Volumes

*The methodology used to develop the future no-build condition volumes noted in the original TIS is still valid, but since there were updates to the existing condition volumes as noted previously and volumes associated with the AUD Expansion/NEXUS Center project were added, the future no-build condition volumes have been updated to reflect those changes. It was also noted that the original Figure 3.1 did not accurately depict traffic signalization at the intersections of NYS Route 5S with Washington Street and Seneca Street. The future no-build AM and PM peak hour volumes for the study area intersections are shown on* ***Revised Figure 3.1****.*

## 3.4 Future No-Build Analysis

A capacity analysis was performed for the study area using the future no-build condition traffic volumes with the proposed NYS Route 5S roadway changes and existing roadway and intersection geometry information for the remainder of the study area. Starting on page 3-7, **Revised Table 3.1** shows the AM and PM peak hour future no-build condition level of service (LOS), delay in seconds, volume to capacity ratio, and 95$^{th}$ percentile queues[3] for each lane group of each study intersection.

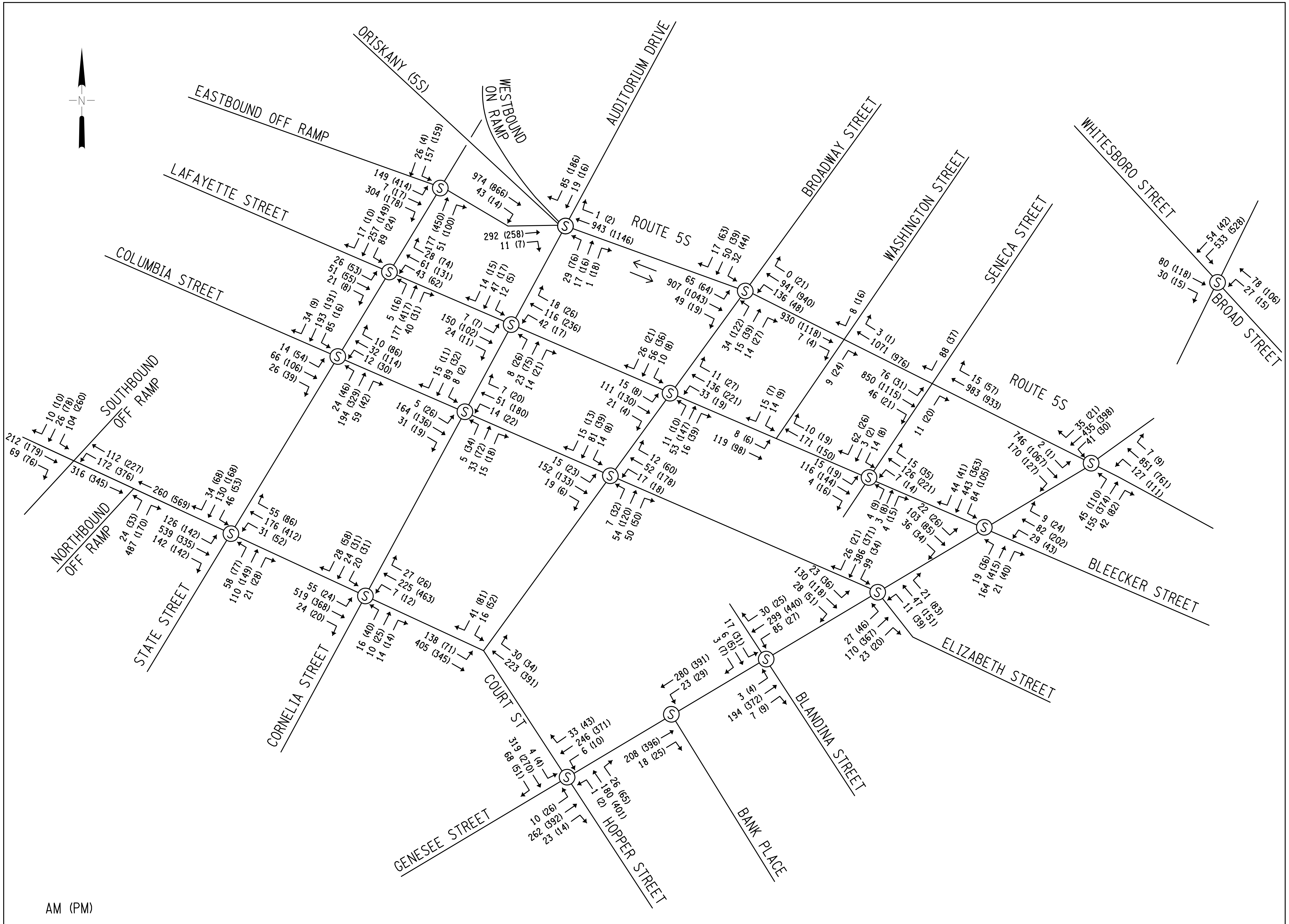
*Each of the study intersections operate at a LOS C or better during the peak hours. There are a few movements at some intersections that were noted at a LOS E or F for the future no-build condition as noted below:*

- *6 – Cornelia Street & Oriskany Street (AM)*
  - *Northeastbound (from off-ramp) THRU/RT = LOS E (55.0 sec) previously LOS D (42.4 sec)*
- *6 – Cornelia Street & Oriskany Street (PM)*
  - *Northbound LT/THRU/RT = LOS E (67.6 sec) previously LOS F (96.2 sec)*
  - *Northeastbound (from off-ramp) THRU/RT = LOS E (63.9 sec) previously LOS D (44.4 sec)*
- *10 – Broadway & Oriskany/Liberty Street (PM)*
  - *Southbound LT = LOS E (60.5 sec) previously did not exist as a dedicated movement*
- *20/21 – Oriskany Street & Genesee Street (AM)*
  - *Northbound LT = LOS E (56.6 sec) previously did not exist as a dedicated movement*
- *22 – Genesee Street & Lafayette/Bleecker Street (AM)*
  - *Eastbound LT/THRU/RT = LOS E (55.7 sec) previously LOS D (37.3 sec)*
  - *Westbound LT/THRU/RT = LOS E (56.8 sec) previously LOS D (36.9 sec)*

*The operations for a number of movements improved compared to the existing condition scenario due to the changes associated with the NYS Route 5S project. For example, the northbound movement at intersection 6 – Cornelia Street & Oriskany Street improved during the PM peak hour to a LOS E.*

*The revised future no-build condition model reports are included in the* ***Revised Appendix B****.*

[3] "The **95th-percentile queue** is defined to be the queue length that has only a 5% probability of being exceeded during the analysis time period. It is a useful parameter for determining the appropriate length of turn pockets, but it is not typical of what an average driver would experience."
https://www.hcmguide.com/Case1/popup_terms/95_percentile_queue.htm




REVISED FIGURE 3.1

NOT TO SCALE

FUTURE NO BUILD (2022)
PEAK HOUR VOLUMES

MOHAWK VALLEY
HEALTH SYSTEM
TRAFFIC IMPACT STUDY

**Revised Table 3.1—Future No-Build Capacity Analysis Results**

| | | AM Peak Hour | | | PM Peak Hour | | |
|---|---|---|---|---|---|---|---|
| | | LOS (delay in sec) | v/c Ratio | 95th % Queue (ft) | LOS (delay in sec) | v/c Ratio | 95th % Queue (ft) |
| 1 - NB Off-Ramp & Court Street | | | | | | | |
| Eastbound | THRU | A (3.5) | 0.18 | 3 | A (8.1) | 0.22 | 44 |
| Westbound | THRU | A (8.9) | 0.10 | 39 | A (7.9) | 0.21 | 60 |
| Northbound | LT | D (36.0) | 0.15 | 37 | D (49.8) | 0.20 | 49 |
| | RT | A (9.0) | 0.70 | 49 | A (9.2) | 0.43 | 34 |
| *Average Intersection LOS (delay in sec)* | | | *A (8.0)* | | | *A (9.4)* | |
| 1A - SB On-Ramp & Court Street | | | | | | | |
| Eastbound | THRU | C (20.6) | 0.18 | 78 | C (24.4) | 0.18 | 74 |
| | RT | A (0.3) | 0.11 | 0 | A (0.4) | 0.13 | 0 |
| Westbound | LT | C (29.7) | 0.47 | 43 | D (43.9) | 0.67 | 177 |
| | THRU | A (2.0) | 0.09 | 6 | A (1.6) | 0.18 | 6 |
| Southbound | LT | D (36.6) | 0.31 | 51 | D (46.3) | 0.67 | 121 |
| | THRU | C (34.8) | 0.14 | 37 | D (41.2) | 0.37 | 90 |
| | RT | A (0.1) | 0.03 | 0 | A (0.1) | 0.03 | 0 |
| *Average Intersection LOS (delay in sec)* | | | *C (20.5)* | | | *C (30.3)* | |
| 2 - State Street & On/Off-Ramp | | | | | | | |
| Eastbound | LT/THRU/RT | B (13.7) | 0.74 | 126 | D (46.1) | 0.95 | #488 |
| Northbound | THRU | B (10.2) | 0.22 | 82 | B (11.6) | 0.55 | 120 |
| | RT | A (4.1) | 0.07 | 17 | A (1.2) | 0.13 | 8 |
| Southbound | LT/THRU | B (12.6) | 0.37 | 97 | C (27.0) | 0.62 | #154 |
| *Average Intersection LOS (delay in sec)* | | | *B (12.2)* | | | *C (28.6)* | |
| 3 - State Street & Lafayette Street | | | | | | | |
| Eastbound | LT/THRU/RT | B (13.3) | 0.30 | 43 | C (25.2) | 0.43 | 82 |
| Westbound | LT/THRU/RT | B (15.4) | 0.43 | 56 | C (31.7) | 0.71 | 165 |
| Northbound | LT | A (5.4) | 0.01 | 4 | A (6.1) | 0.02 | m8 |
| | THRU/RT | A (5.4) | 0.20 | 58 | A (7.8) | 0.44 | 126 |
| Southbound | LT | A (6.1) | 0.13 | 31 | B (12.4) | 0.06 | m13 |
| | THRU/RT | A (6.0) | 0.25 | 77 | B (12.0) | 0.15 | m94 |
| *Average Intersection LOS (delay in sec)* | | | *A (8.3)* | | | *B (16.7)* | |
| 4 - State Street & Columbia Street | | | | | | | |
| Eastbound | LT/THRU/RT | B (14.7) | 0.35 | 46 | D (39.2) | 0.70 | 132 |
| Westbound | LT/THRU/RT | B (13.2) | 0.19 | 29 | C (30.4) | 0.76 | 133 |
| Northbound | LT | A (4.8) | 0.03 | 10 | A (7.8) | 0.08 | 28 |
| | THRU/RT | A (4.7) | 0.23 | 57 | A (9.1) | 0.38 | 172 |
| Southbound | LT | A (5.3) | 0.13 | 26 | A (4.8) | 0.03 | m8 |
| | THRU/RT | A (4.8) | 0.20 | 53 | A (4.6) | 0.20 | 56 |
| *Average Intersection LOS (delay in sec)* | | | *A (6.8)* | | | *B (18.4)* | |
| 5 - State Street & Court Street | | | | | | | |
| Eastbound | LT | A (8.3) | 0.26 | 41 | B (12.7) | 0.33 | 75 |
| | THRU/RT | B (14.8) | 0.62 | 124 | B (14.9) | 0.34 | 102 |
| Westbound | LT | A (7.2) | 0.11 | 14 | A (9.7) | 0.12 | 30 |
| | THRU/RT | A (9.2) | 0.21 | 39 | B (19.1) | 0.39 | 158 |
| Northbound | LT | B (12.6) | 0.16 | 33 | C (25.1) | 0.28 | 75 |
| | THRU/RT | B (11.1) | 0.23 | 55 | C (22.9) | 0.32 | 134 |
| Southbound | LT | B (12.1) | 0.12 | 28 | C (22.8) | 0.16 | 53 |
| | THRU/RT | B (11.3) | 0.29 | 65 | C (23.7) | 0.43 | 173 |
| *Average Intersection LOS (delay in sec)* | | | *B (12.3)* | | | *B (18.5)* | |
| 6 - Cornelia Street & Oriskany Street | | | | | | | |
| Eastbound | THRU/RT | A (8.2) | 0.45 | 269 | C (27.3) | 0.63 | 368 |
| Westbound | THRU/RT | A (3.3) | 0.37 | 122 | A (4.2) | 0.51 | 156 |
| Northbound | LT/THRU/RT | D (53.4) | 0.42 | 69 | E (67.6) | 0.74 | #189 |
| Southbound | LT/THRU/RT | B (19.1) | 0.47 | 63 | C (25.0) | 0.54 | 154 |
| Northeast bound | THRU/RT | E (55.0) | 0.38 | 65 | E (63.9) | 0.86 | 289 |
| *Average Intersection LOS (delay in sec)* | | | *A (8.4)* | | | *C (22.4)* | |
| 7 - Cornelia Street & Lafayette Street | | | | | | | |
| Eastbound | LT/THRU/RT | A (9.2) | 0.24 | 67 | A (8.6) | 0.15 | 46 |
| Westbound | LT/THRU/RT | A (9.7) | 0.25 | 67 | B (10.9) | 0.36 | 104 |
| Northbound | LT/THRU/RT | A (9.3) | 0.08 | 24 | B (11.3) | 0.20 | 54 |
| Southbound | LT/THRU/RT | B (10.5) | 0.12 | 36 | A (7.9) | 0.07 | m12 |
| *Average Intersection LOS (delay in sec)* | | | *A (9.6)* | | | *B (10.3)* | |

**Table 3.1—Future No-Build Capacity Analysis Results cont.**

| | | AM Peak Hour | | | PM Peak Hour | | |
|---|---|---|---|---|---|---|---|
| | | **LOS (delay in sec)** | **v/c Ratio** | **95th % Queue (ft)** | **LOS (delay in sec)** | **v/c Ratio** | **95th % Queue (ft)** |
| 8 – Cornelia Street & Columbia Street | | | | | | | |
| Eastbound | LT/THRU/RT | B (11.4) | 0.28 | 85 | B (12.6) | 0.33 | 78 |
| Westbound | LT/THRU/RT | B (10.1) | 0.11 | 36 | B (13.6) | 0.40 | 97 |
| Northbound | LT/THRU/RT | A (8.4) | 0.08 | 26 | B (10.7) | 0.22 | 53 |
| Southbound | LT/THRU/RT | A (10.0) | 0.16 | 50 | A (8.8) | 0.08 | 22 |
| *Average Intersection LOS (delay in sec)* | | | *B (10.4)* | | | *B (12.3)* | |
| 9 - Cornelia Street & Court Street | | | | | | | |
| Eastbound | LT/THRU/RT | B (19.4) | 0.55 | 161 | B (17.2) | 0.37 | 108 |
| Westbound | LT/THRU/RT | B (14.6) | 0.23 | 65 | B (18.0) | 0.37 | 131 |
| Northbound | LT | A (8.8) | 0.03 | 12 | A (9.2) | 0.07 | 24 |
| | THRU/RT | A (5.8) | 0.03 | 13 | A (6.6) | 0.05 | 19 |
| Southbound | LT | A (8.9) | 0.03 | 14 | A (9.1) | 0.05 | 20 |
| | THRU/RT | A (5.4) | 0.06 | 21 | A (4.4) | 0.11 | 27 |
| *Average Intersection LOS (delay in sec)* | | | *B (16.7)* | | | *B (15.7)* | |
| 10 - Broadway & Oriskany/Liberty Street | | | | | | | |
| Eastbound | LT | A (4.0) | 0.19 | 10 | A (2.5) | 0.22 | m11 |
| | THRU/RT | A (5.3) | 0.46 | 270 | A (4.6) | 0.57 | 120 |
| Westbound | LT | B (12.6) | 0.37 | 89 | B (17.8) | 0.19 | 38 |
| | THRU/RT | B (14.9) | 0.42 | 367 | C (28.2) | 0.52 | 443 |
| Northbound | LT | D (37.0) | 0.21 | 47 | D (39.4) | 0.49 | 124 |
| | THRU/RT | B (18.1) | 0.08 | 23 | C (20.4) | 0.17 | 56 |
| Southbound | LT | D (52.7) | 0.33 | 55 | E (60.5) | 0.45 | 71 |
| | THRU/RT | D (48.5) | 0.49 | 84 | D (38.2) | 0.59 | 93 |
| *Average Intersection LOS (delay in sec)* | | | *B (12.3)* | | | *B (18.5)* | |
| 11 - Broadway & Lafayette Street | | | | | | | |
| Eastbound | LT/THRU/RT | A (7.6) | 0.18 | 52 | A (9.2) | 0.22 | 55 |
| Westbound | LT/THRU/RT | A (8.7) | 0.22 | 66 | B (11.1) | 0.42 | 102 |
| Northbound | LT/THRU/RT | B (12.3) | 0.14 | 43 | B (17.6) | 0.46 | 101 |
| Southbound | LT/THRU/RT | B (11.4) | 0.16 | 46 | B (11.4) | 0.16 | 34 |
| *Average Intersection LOS (delay in sec)* | | | *A (9.4)* | | | *B (12.6)* | |
| 12 - Broadway & Columbia Street | | | | | | | |
| Eastbound | LT/THRU/RT | A (6.2) | 0.20 | 53 | A (6.8) | 0.23 | 48 |
| Westbound | LT/THRU/RT | A (5.4) | 0.09 | 26 | A (7.0) | 0.35 | 66 |
| Northbound | LT/THRU/RT | B (10.4) | 0.22 | 48 | B (18.7) | 0.52 | 97 |
| Southbound | LT/THRU/RT | B (14.6) | 0.23 | 59 | B (13.1) | 0.16 | 33 |
| *Average Intersection LOS (delay in sec)* | | | *A (8.9)* | | | *B (11.0)* | |
| 13 - Broadway & Court Street | | | | | | | |
| Eastbound | LT/THRU | a (8.2) | 0.117 | 20 | a (8.7) | 0.081 | 6 |
| Westbound | THRU/RT | n/a | n/a | n/a | n/a | n/a | n/a |
| Southbound | LT/RT | b (12.3) | 0.112 | 20 | c (1.7) | 0.372 | 22 |
| *Average Intersection LOS (delay in sec)* | | | *n/a* | | | *n/a* | |
| 14 / 15 - Oriskany Street & Washington Street | | | | | | | |
| Eastbound | THRU/RT | n/a | n/a | n/a | n/a | n/a | n/a |
| Westbound | THRU/RT | n/a | n/a | n/a | n/a | n/a | n/a |
| Northbound | RT | a (9.2) | 0.01 | 1 | a (9.3) | 0.03 | 2 |
| Southbound | RT | b (10.4) | 0.01 | 1 | b (10.3) | 0.03 | 2 |
| *Average Intersection LOS (delay in sec)* | | | *n/a* | | | *n/a* | |
| 16 - Washington Street - Lafayette Street | | | | | | | |
| Eastbound | LT/THRU | a (7.6) | 0.006 | 0 | a (7.6) | 0.005 | 0 |
| Westbound | THRU/RT | n/a | n/a | n/a | n/a | n/a | n/a |
| Southbound | LT/RT | b (10.1) | 0.043 | 20 | A (9.8) | 0.023 | 2 |
| *Average Intersection LOS (delay in sec)* | | | *n/a* | | | *n/a* | |
| 17 / 18 - Oriskany Street & Seneca Street | | | | | | | |
| Eastbound | LT | b (11.5) | 0.14 | 12 | b (10.3) | 0.05 | 4 |
| | THRU/RT | n/a | n/a | n/a | n/a | n/a | n/a |
| Westbound | THRU/RT | n/a | n/a | n/a | n/a | n/a | n/a |
| Northbound | RT | a (9.6) | 0.02 | 1 | b (10.6) | 0.03 | 3 |
| Southbound | RT | b (10.7) | 0.14 | 12 | b (10.0) | 0.05 | 4 |
| *Average Intersection LOS (delay in sec)* | | | *n/a* | | | *n/a* | |

**Table 3.1—Future No-Build Capacity Analysis Results cont.**

| | | AM Peak Hour | | | PM Peak Hour | | |
|---|---|---|---|---|---|---|---|
| | | LOS (delay in sec) | v/c Ratio | 95th % Queue (ft) | LOS (delay in sec) | v/c Ratio | 95th % Queue (ft) |
| 19 - Seneca Street & Lafayette Street | | | | | | | |
| Eastbound | LT/THRU/RT | a (7.5) | 0.011 | 0 | a (7.8) | 0.016 | 1 |
| Westbound | LT/THRU/RT | a (7.5) | 0.005 | 20 | a (7.5) | 0.011 | 1 |
| Northbound | LT/THRU/RT | b (10.6) | 0.018 | 20 | b (11.6) | 0.060 | 5 |
| Southbound | LT/THRU/RT | a (9.9) | 0.105 | 20 | b (10.9) | 0.060 | 5 |
| *Average Intersection LOS (delay in sec)* | | | *n/a* | | | *n/a* | |
| 20 / 21 - Oriskany Street & Genesee Street | | | | | | | |
| Eastbound | LT | A (3.0) | 0.01 | m1 | A (5.0) | 0.00 | m0 |
| | THRU/RT | A (7.8) | 0.57 | 215 | B (15.2) | 0.78 | #289 |
| Westbound | LT | B (17.8) | 0.42 | 62 | D (38.6) | 0.53 | #91 |
| | THRU/RT | B (11.6) | 0.44 | 296 | B (17.0) | 0.41 | 306 |
| Northbound | LT | E (56.6) | 0.54 | 66 | D (38.3) | 0.50 | 117 |
| | THRU | D (43.2) | 0.64 | 188 | D (52.8) | 0.87 | 409 |
| Southbound | LT | D (37.3) | 0.28 | 55 | D (38.8) | 0.34 | 45 |
| | THRU/RT | D (44.4) | 0.75 | 209 | C (31.0) | 0.41 | 160 |
| *Average Intersection LOS (delay in sec)* | | | *B (19.9)* | | | *C (25.2)* | |
| 22 - Genesee Street & Lafayette/Bleecker Street | | | | | | | |
| Eastbound | LT/THRU/RT | E (55.7) | 0.70 | 174 | B 20.0) | 0.31 | 97 |
| Westbound | LT/THRU/RT | E (56.8) | 0.65 | 142 | C (29.5) | 0.31 | 197 |
| Northbound | LT/THRU/RT | A (9.7) | 0.10 | 68 | A (5.4) | 0.56 | 51 |
| Southbound | LT/THRU/RT | A (5.1) | 0.28 | 104 | A (9.8) | 0.56 | 98 |
| *Average Intersection LOS (delay in sec)* | | | *B (19.6)* | | | *B (13.2)* | |
| 23 - Genesee Street & Columbia/Elizabeth Street | | | | | | | |
| Eastbound | LT/THRU/RT | D (53.0) | 0.71 | 201 | B (16.1) | 0.36 | 116 |
| Westbound | LT/THRU/RT | C (34.9) | 0.32 | 86 | B (17.3) | 0.46 | 152 |
| Northbound | LT/THRU/RT | A (7.6) | 0.11 | 60 | B (15.6) | 0.41 | 120 |
| Southbound | LT/THRU/RT | A (5.4) | 0.27 | 89 | B (16.1) | 0.38 | 111 |
| *Average Intersection LOS (delay in sec)* | | | *B (16.9)* | | | *B (16.2)* | |
| 24 - Genesee Street SB Off-Ramp & Whitesboro Street | | | | | | | |
| Southeast bound | THRU/RT | A (7.7) | 0.12 | 20 | A (9.3) | 0.18 | 25 |
| Northwest bound | LT | B (10.2) | 0.08 | 17 | B (10.9) | 0.04 | 12 |
| | THRU | B (10.4) | 0.16 | 37 | B (13.2) | 0.28 | #57 |
| Southwest bound | LT | A (9.9) | 0.45 | 132 | A (4.1) | 0.31 | 32 |
| | LT/THRU | A (9.9) | 0.45 | 132 | A (3.0) | 0.18 | 15 |
| *Average Intersection LOS (delay in sec)* | | | *A (9.6)* | | | *A (5.8)* | |
| 25 - Genesee Street & Blandina Street | | | | | | | |
| Southbound | LT/THRU/RT | D (49.2) | 0.24 | 46 | C (30.5) | 0.27 | 46 |
| Northeast bound | LT/THRU/RT | A (1.4) | 0.07 | 17 | A (2.0) | 0.15 | 35 |
| Southwest bound | LT/THRU/RT | A (2.7) | 0.17 | 77 | A (1.1) | 0.20 | 17 |
| *Average Intersection LOS (delay in sec)* | | | *A (4.1)* | | | *A (2.8)* | |
| 26 - Genesee Street & Bank Place | | | | | | | |
| Northeast bound | LT/THRU/RT | A (0.0) | 0.07 | 0 | A (0.1) | 0.13 | 0 |
| Southwest bound | LT/THRU/RT | A (0.1) | 0.10 | 0 | A (0.1) | 0.14 | 0 |
| *Average Intersection LOS (delay in sec)* | | | *A (0.10)* | | | *A (0.1)* | |
| 27 - Genesee Street & Court Street | | | | | | | |
| Southeast bound | LT/THRU/RT | D (47.4) | 0.72 | 186 | B (12.4) | 0.24 | 74 |
| Northwest bound | LT/THRU/RT | D (38.6) | 0.38 | 101 | B (14.0) | 0.35 | 110 |
| Northeast bound | LT/THRU/RT | A (5.2) | 0.14 | 54 | B (15.8) | 0.37 | 112 |
| Southwest bound | LT/THRU/RT | A (5.7) | 0.13 | 77 | B (14.9) | 0.35 | 105 |
| *Average Intersection LOS (delay in sec)* | | | *C (25.2)* | | | *B (14.4)* | |

X - signalized intersection LOS

x- unsignalized intersection LOS

n/a - no conflicting movement, therefore no delays

m - volume for 95th % queue is metered by upstream signal

# - 95th % volume exceeds capacity, queue may be longer

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# Section 4—Future Build Condition

## 4.1 Proposed Development

The MVHS IHC project is expected to include a 688,000 square foot (SF) hospital building with 373 beds and 2,400 employees, an 80,000 SF medical office building, a central utility plant, heliport, a 1,550 space parking garage, and numerous surface parking facilities.

- The main hospital building will be constructed on parcels located west of Broadway and will extend through Cornelia Street onto parcels located east of State Street. The hospital building consists of a 2-story podium and 7-story bed tower.
- The central energy plant building will be located along the south side of Columbia Street between Cornelia Street and Broadway
- The medical office building is located at the southwest corner of the intersection of Columbia Street and Cornelia Street
- On-site parking totals 1,830 spaces in the following facilities (see **Figure 4.1**):
    - Parking garage on the property bound by State Street, Lafayette Street, Cornelia Street, and NYS Route 5S – contains 1,550 total spaces, 500 of which will be dedicated to City use. *Since there are no new businesses or development associated with the 500 municipal spaces, it is assumed that their use would be outside of the typical commuter peak periods analyzed in this study. Therefore, 1,050 spaces are included in the analysis for this study.* Access will be on Cornelia Street and State Street. It is assumed all public patients and visitors to the hospital will park here along with some employees.
    - Two employee surface parking lots: 219 space facility just west of State Street and north of Lafayette Street with access on State Street and a 107 space facility just west of State Street between Lafayette Street and Columbia Street with access on Columbia Street
    - Surface parking lot with 375 spaces adjacent to the medical office building with access on State Street and Cornelia Street
    - Emergency Department surface parking between the main hospital building and State Street with a total of 79 spaces with access on Columbia Street and State Street as well as direct access to the garage
- A pedestrian walkway and access to the emergency department entrance will replace Lafayette Street between Cornelia Street and State Street.
- The heliport will be located west of the hospital building, adjacent to the emergency department ambulance entrance and north of Columbia Street.

## 4.2 Parking Generation

Using the Institute of Engineers (ITE), Parking Generation Manual, 3rd Edition, the anticipated parking supply and demand associated with the proposed MVHS IHC was estimated. Land use codes 610 – Hospital and 720 – Medical-Dental Office were used to estimate the parking supply needed and anticipated peak (weekday) parking demand. Based on the anticipated number of employees for the hospital and size of the medical office building, the parking supply and demand is estimated as shown in the table below:

### Table 4.1—Parking Supply and Demand (ITE Parking Generation Manual Estimates)

| ITE Land Use Code | Description | Unit | Urban Supply/ Unit | Urban Peak Demand/ Unit | MVHS Unit | Urban Supply | Urban Peak Demand |
|---|---|---|---|---|---|---|---|
| 610 | Hospital | Employees | 0.72 | 0.6 | 2,400 | 1,728 | 1,440 |
| 720 | Medical-Dental Office | GFA (kSF)[1] | 3.9 | 3.53 | 80 | 312 | 283 |
| | | | | | Totals | 2,040 | 1,723 |

1: GFA – gross floor area, kSF – thousands of square feet

While the calculation for the hospital is based on the total number of employees, it takes into account all parking demand associated with the land use such as patients, visitors, as well as staff in an urban setting. This analysis indicates that hospitals with 2,400 employees along with an 80,000 SF medical office building typically provide approximately 2,000 parking spaces to accommodate their demand. The peak demand for the development is estimated at just over 1,700 spaces for a typical weekday.

The proposed development includes a total of 1,830 spaces. While it is less than ITE indicates is typically provided at similar facilities, it is more than is anticipated to be needed for their peak demand. **Table 4.2** shows how the proposed parking supply and estimated demand compare for the MVHS IHC development. Based on this analysis, the hospital could consider allocating some hospital employees to the parking lot adjacent to the medical office building to more equally distribute demand amongst the MVHS IHC facilities.

### Table 4.2—MVHS IHC Parking Summary

| | Proposed Supply | Anticipated Peak Demand | Estimated Surplus |
|---|---|---|---|
| Hospital | 1,455 | 1,440 | 15 |
| Medical Office Building | 375 | 283 | 92 |
| Total | 1,830 | 1,723 | 107 |

Parking generation information is included in **Appendix E**.

*In response to a comment, the number of spaces provided for the new facility was compared to what is currently provided at the existing facilities to ensure MVHS is not providing too much or too little parking supply on-site. Between the two existing facilities, there are approximately 2,800 spaces while the new facility is providing 1,455 spaces for just the hospital itself. This indicates that while they are providing less parking than they currently have, the comparison to ITE Parking Generation data for similar facilities indicate they will have enough supply to meet their anticipated demand. Therefore, the IHC project is not significantly over- or under-estimating their parking supply or demand.*

## 4.3 Trip Generation

## 4.4 Trip Distribution

As part of the analysis included for the NYS Route 5S project, an initial trip generation and distribution for the proposed MVHS IHC project was developed to be incorporated in their future conditions modeling. A letter memo was developed by GTS Consulting in March 2016 that used initial development assumptions and data provided by the MVHS regarding employee and patient zip code information to determine peak hour regional distributions (see **Appendix E**). While the project information has changed since that memo was developed that significantly changes trip generation estimates, the employee and patient information and routing assumptions are still valid. Therefore, the regional distribution from that memo was used for this analysis. **Figure 4.2** shows the regional trip distribution to the study area.

The local distribution of project-generated trips within the study area is based on the most logical routing to/from the larger/busier highways and roadways to/from each individual parking facility access. The number of trips allocated to/from each parking location is based on the size of the facility and on the following assumptions:

- All hospital related trips are routed to/from the garage, employee parking lots, and the emergency department parking based on the regional distribution, proportion of number of spaces available at each facility (i.e., the garage would see the most trips, then the larger employee lot, the smaller employee lot, and the emergency department parking would have the least number of trips assigned to it), and the most direct route to/from each access point
- The trips generated by the medical office building are directed to/from the parking lot adjacent to the building
- *Of the traffic to/from south of the study area via NYS Route 5/8/12, 60% utilize the Oriskany ramps vs 40% utilizing the Court Street ramps*
- *Traffic existing the parking garage is more distributed between Cornelia Street and Broadway and more traffic is distributed eastbound along Lafayette Street to Genesee Street and points north/east*

- *The original study assumed traffic traveling to the IHC project northbound along Genesee Street would take a left onto Court Street. Since this movement is prohibited, traffic was redistributed to either Columbia or Lafayette Street depending on their destination.*
- *The distribution of hospital related trips also assumes that 10% of traffic heading to the hospital southbound along Genesee Street to the garage or main entrance of the hospital will travel there via Whitesboro Street to Auditorium Drive (a private road) and across NYS Route 5S (Oriskany Street).*

*The future AM and PM peak hour trips associated with the proposed development are shown in* ***Revised Figures 4.3 and 4.4****, respectively. The trip generation and revised distribution was reviewed and accepted by the NYSDOT.*

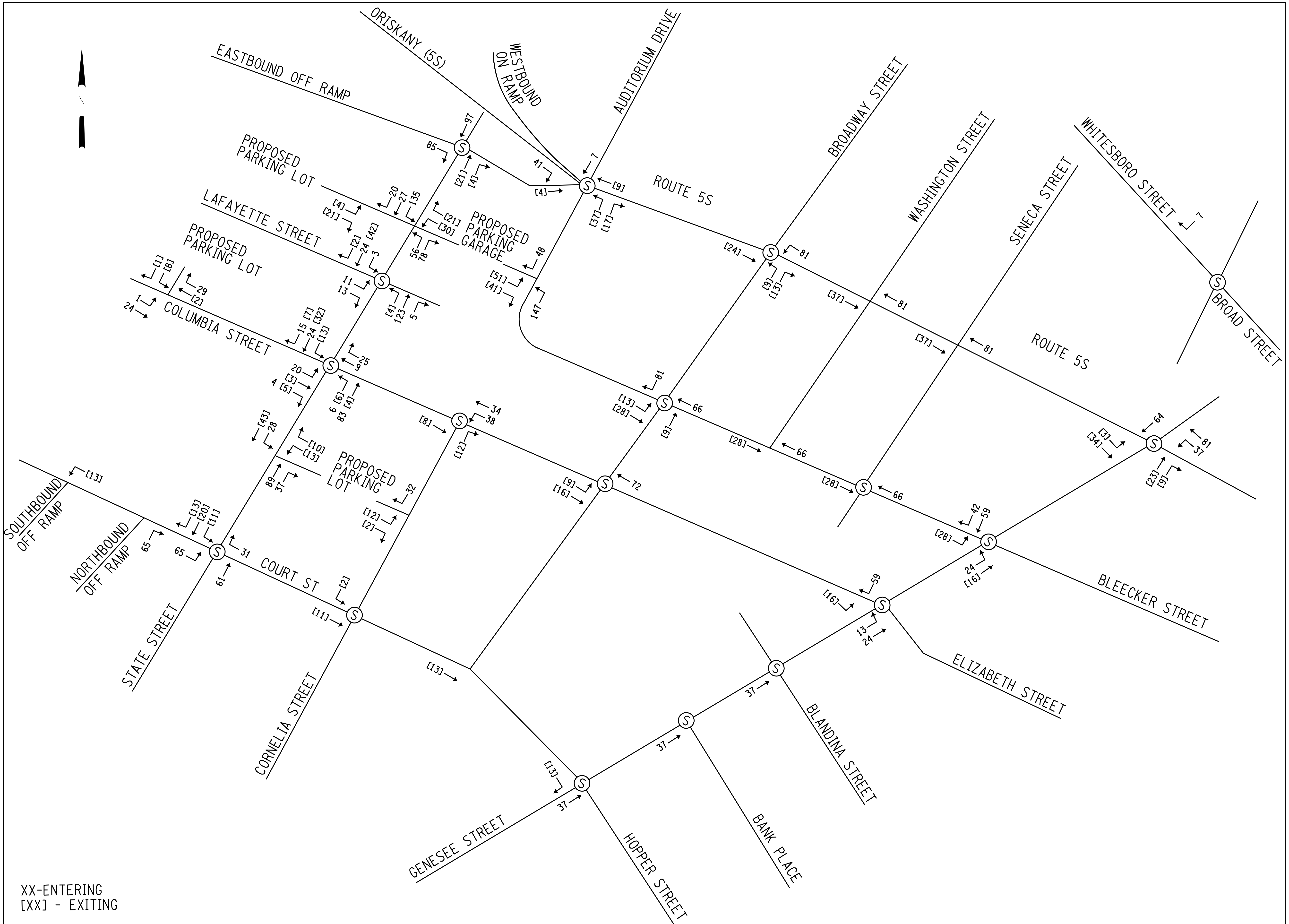
*The future build condition also incorporates any traffic rerouting/redistribution based on the anticipated closures of Lafayette Street between Cornelia Street and State Street and Cornelia Street between Columbia Street and Lafayette Street associated with the proposed development. Since the volume data used in this analysis includes heavy vehicles, school and transit buses, as well as other larger trucks, they were also included when the local redistribution of traffic was developed. The rerouting/redistribution of traffic throughout the study area intersections due to these roadway closures was based on the following assumptions:*

- *Rerouting was developed from the inside out – starting at the intersection of Lafayette Street and Cornelia Street and worked to the edges of the study area, as necessary*
- *Vehicles would not turn back the direction they were coming from*
- *It was assumed that 50% of vehicles would travel straight through an intersection on a parallel street while 50% would make a left turn*
- *Vehicles were rerouted following existing traffic patterns based on percentages of movements at each approach*

*The revised redistribution of traffic associated with the two roadway closures was reviewed and accepted by the NYSDOT and is shown in* ***New Figure 4.A***

## 4.5 Future Build Volumes

*The estimated AM and PM trips generated by the proposed project were added to the future no-build volumes (see Revised Figure 3.1) to create the future build conditions volumes. The future build condition volumes for the AM and PM peak hours are shown in* ***Revised Figure 4.5****.*




REVISED FIGURE 4.3

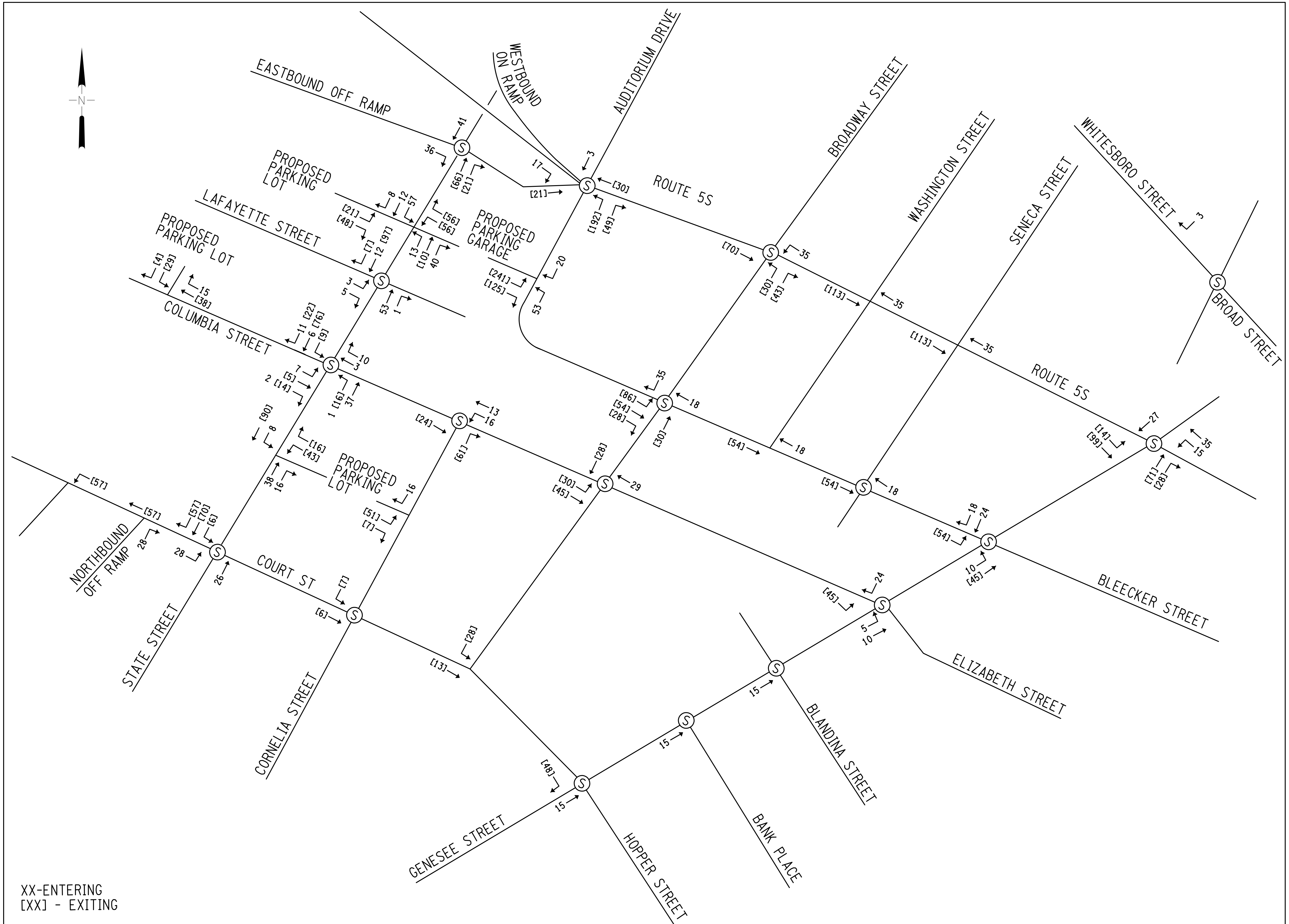
C&S COMPANIES®

NOT TO SCALE

TRIP DISTRIBUTION AM PEAK HOUR VOLUMES

MOHAWK VALLEY HEALTH SYSTEM

TRAFFIC IMPACT STUDY




REVISED FIGURE 4.4

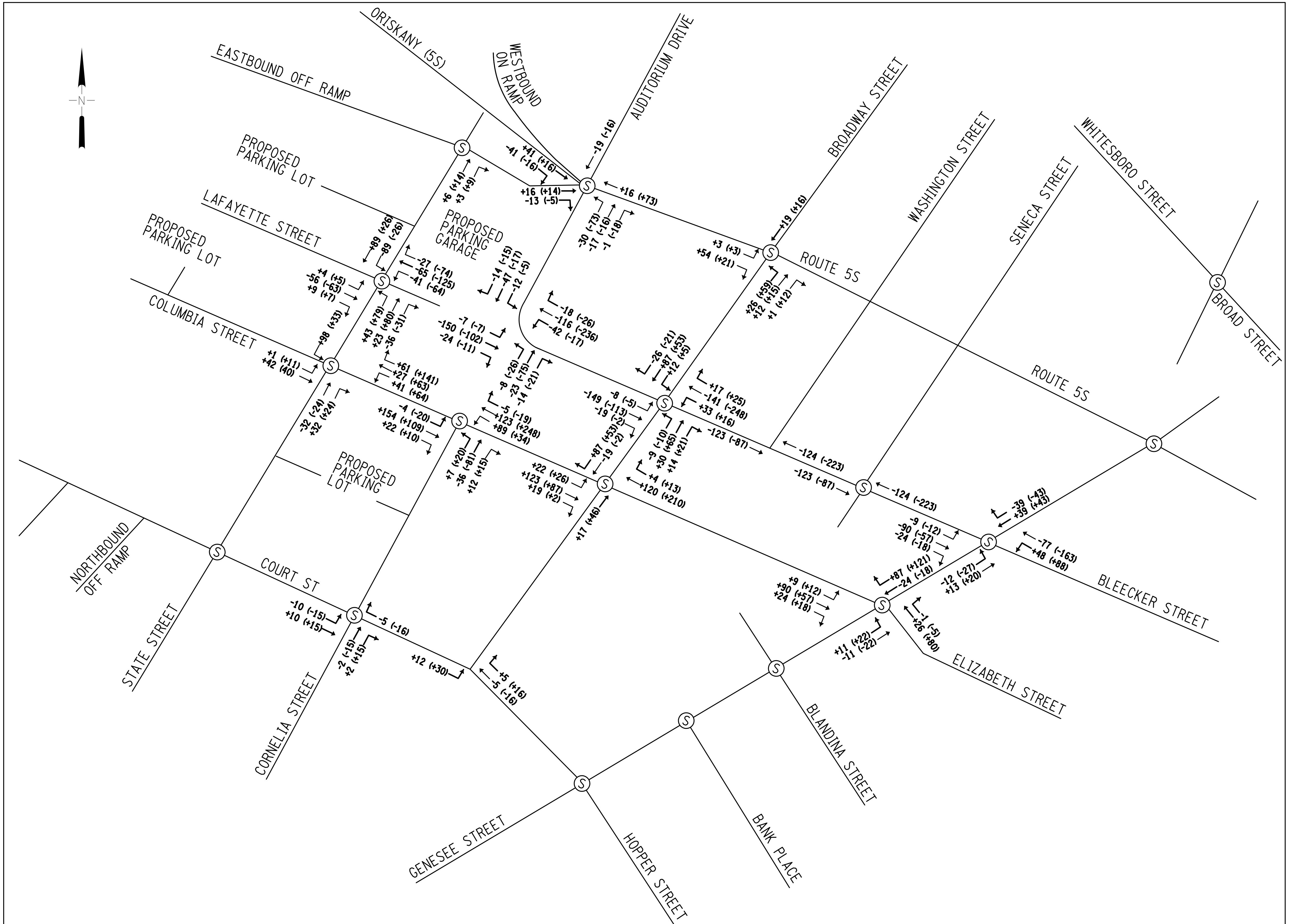
C&S COMPANIES®

NOT TO SCALE

TRIP DISTRIBUTION PM PEAK HOUR VOLUMES

MOHAWK VALLEY HEALTH SYSTEM

TRAFFIC IMPACT STUDY

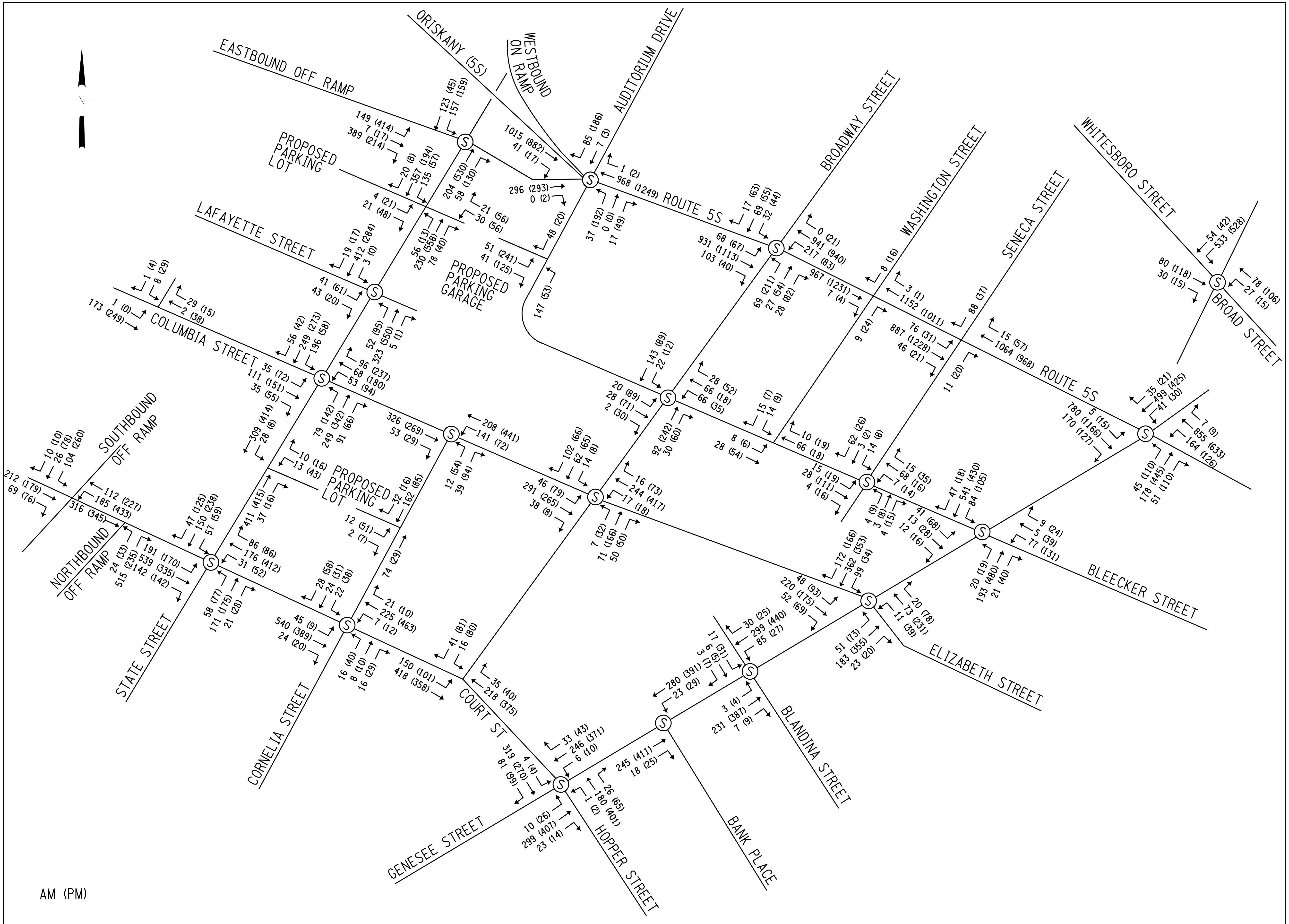



REVISED FIGURE **4.A**

NOT TO SCALE

**LOCAL TRIP DISTRIBUTION VOLUMES COMBINED DISTRIBUTION**

**MOHAWK VALLEY HEALTH SYSTEM TRAFFIC IMPACT STUDY**




REVISED FIGURE 4.5

C&S COMPANIES®

NOT TO SCALE

FUTURE BUILD (2022) PEAK HOUR VOLUMES

MOHAWK VALLEY HEALTH SYSTEM TRAFFIC IMPACT STUDY

## 4.6 Future Build Analysis

*A capacity analysis was performed for the study area using the future build condition traffic volumes. Starting on page 4-23,* ***Revised Tables 4.4 and 4.5*** *shows the AM and PM peak hour future condition level of service (LOS), delay in seconds, volume to capacity ratio, and 95$^{th}$ percentile queues[4] for each lane group of each study intersection.*

*When compared to the future no-build scenario analysis results, all of the study intersections operate at LOS C or better except for intersection 2 – State Street & On/Off-Ramp (average intersection LOS D (37.1 sec) previously LOS C (28.6 sec)), 4 – State Street & Columbia Street (average intersection LOS D (36.0 sec) previously LOS B (18.4 sec)), and 20/21 – Oriskany Street & Genesee Street (average intersection LOS D (39.1 sec) previously LOS C (25.2 sec), all during the PM peak hour.*

*The following movements are expected to worsen to a LOS E or F:*

- *2 – State Street & On/Off-Ramp (PM)*
  - *Southbound THRU/RT = LOS E (63.6 sec) previously LOS C (27.0 sec)*
- *4 – State Street & Columbia Street (PM)*
  - *Westbound LT/THRU/RT = LOS F (75.4 sec) previously LOS C (30.4 sec)*
- *6 – Cornelia Street & Oriskany Street (PM)*
  - *Northbound LT/THRU/RT = LOS F (120.0) previously LOS E (67.6 sec)*
- *10 – Broadway & Oriskany/Liberty Street (AM)*
  - *Southbound THRU/RT = LOS E (59.2 sec) previously D (48.5 sec)*
- *20/21 – Oriskany Street & Genesee Street (PM)*
  - *Northbound THRU = LOS F (106.6 sec) previously D (52.8 sec)*

*The revised future build condition model reports are included in the* ***Revised Appendix B****.*

[4] "The **95**th**-percentile queue** is defined to be the queue length that has only a 5% probability of being exceeded during the analysis time period. It is a useful parameter for determining the appropriate length of turn pockets, but it is not typical of what an average driver would experience."
https://www.hcmguide.com/Case1/popup_terms/95_percentile_queue.htm

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**Revised Table 4.4—Future Build Capacity Analysis Results: AM Peak Hour**

| | | No-Build | | | Future Build | | |
|---|---|---|---|---|---|---|---|
| | | LOS (delay in sec) | v/c Ratio | 95th % Queue (ft) | LOS (delay in sec) | v/c Ratio | 95th % Queue (ft) |
| 1 - NB Off-Ramp & Court Street | | | | | | | |
| Eastbound | THRU | A (3.) | 0.18 | 3 | A (3.6) | 0.19 | 3 |
| Westbound | THRU | A (8.9) | 0.10 | 39 | A (9.0) | 0.10 | 41 |
| Northbound | LT | D (36.0) | 0.15 | 37 | D (35.4) | 0.14 | 37 |
| | RT | A (9.0) | 0.70 | 49 | A (9.0) | 0.71 | 50 |
| *Average Intersection LOS (delay in sec)* | | | *A (8.0)* | | | *A (8.1)* | |
| 1A - SB On-Ramp & Court Street | | | | | | | |
| Eastbound | THRU | C (20.6) | 0.18 | 78 | C (21.2) | 0.20 | 79 |
| | RT | A (0.3) | 0.11 | 0 | A (0.3) | 0.11 | 0 |
| Westbound | LT | C (29.7) | 0.47 | 43 | C (27.8) | 0.47 | 45 |
| | THRU | A (2.0) | 0.09 | 6 | A (2.1) | 0.09 | 6 |
| Southbound | LT | D (36.6) | 0.31 | 51 | C (35.0) | 0.30 | 51 |
| | THRU | C (34.8) | 0.14 | 37 | C (33.8) | 0.14 | 37 |
| | RT | A (0.1) | 0.03 | 0 | A (0.1) | 0.03 | 0 |
| *Average Intersection LOS (delay in sec)* | | | *C (20.4)* | | | *C (20.1)* | |
| 2 - State Street & On/Off-Ramp | | | | | | | |
| Eastbound | LT/THRU/RT | B (13.7) | 0.74 | 126 | B (13.7) | .78 | 145 |
| Northbound | THRU | B (10.2) | 0.22 | 82 | B (12.1) | 0.27 | 108 |
| | RT | A (4.1) | 0.07 | 17 | A (4.6) | 0.09 | 21 |
| Southbound | LT/THRU | B (12.6) | 0.37 | 97 | B (17.3) | 0.53 | #195 |
| *Average Intersection LOS (delay in sec)* | | | *B (12.2)* | | | *B (13.8)* | |
| 101 - State Street @ Proposed Parking Lot/Garage Access | | | | | | | |
| Eastbound | LT/THRU/RT | | Intersection is not applicable under 'No-Build' scenario | | b (12.4) | 0.053 | 20 |
| Westbound | LT/THRU/RT | | | | c (21.1) | 0.199 | 20 |
| Northbound | LT/THRU/RT | | | | a (8.3) | 0.053 | 20 |
| Southbound | LT/THRU/RT | | | | a (8.4) | 0.120 | 20 |
| *Average Intersection LOS (delay in sec)* | | | | | | *n/a* | |
| 3 - State Street & Lafayette Street/ED Access | | | | | | | |
| Eastbound | LT/THRU/RT | B (13.3) | 0.30 | 43 | B (12.4) | 0.35 | 37 |
| Westbound | LT/THRU/RT | B (15.4) | 0.43 | 56 | B (11.5) | 0.08 | 15 |
| Northbound | LT | A (5.4) | 0.01 | 4 | A (4.3) | 0.08 | 17 |
| | THRU/RT | A (5.4) | 0.20 | 58 | A (4.4) | 0.26 | 74 |
| Southbound | LT | A (6.1) | 0.13 | 31 | A (4.0) | 0.00 | 2 |
| | THRU/RT | A (6.0) | 0.25 | 77 | A (5.0) | 0.34 | 103 |
| *Average Intersection LOS (delay in sec)* | | | *A (8.3)* | | | *A (5.6)* | |
| 4 - State Street & Columbia Street | | | | | | | |
| Eastbound | LT/THRU/RT | B (14.7) | 0.35 | 46 | B (15.5) | 0.48 | 74 |
| Westbound | LT/THRU/RT | B (13.2) | 0.19 | 29 | B (13.2) | 0.54 | 71 |
| Northbound | LT | A (4.8) | 0.03 | 10 | A (7.5) | 0.15 | 34 |
| | THRU/RT | A (4.7) | 0.23 | 57 | A (7.6) | 0.38 | 111 |
| Southbound | LT | A (5.3) | 0.13 | 26 | B (10.3) | 0.40 | 87 |
| | THRU/RT | A (4.8) | 0.20 | 53 | A (7.5) | 0.34 | 101 |
| *Average Intersection LOS (delay in sec)* | | | *A (6.8)* | | | *A (10.0)* | |
| 102 - Columbia Street & Proposed Parking Lot | | | | | | | |
| Eastbound | LT/THRU | | Intersection is not applicable under 'No-Build' scenario | | a (7.3) | 0.001 | 0 |
| Westbound | THRU/RT | | | | n/a | n/a | n/a |
| Southbound | LT/RT | | | | a (9.6) | 0.012 | 0 |
| *Average Intersection LOS (delay in sec)* | | | | | | *n/a* | |
| 103 - State Street & Proposed Parking Lot | | | | | | | |
| Westbound | LT/RT | | Intersection is not applicable under 'No-Build' scenario | | c (24.3) | 0.118 | 20 |
| Northbound | THRU/RT | | | | n/a | n/a | n/a |
| Southbound | THRU/LT | | | | a (9.9) | 0.313 | 40 |
| *Average Intersection LOS (delay in sec)* | | | | | | *n/a* | |
| 5 - State Street & Court Street | | | | | | | |
| Eastbound | LT | A (8.3) | 0.26 | 41 | B (10.3) | 0.41 | 59 |
| | THRU/RT | B (14.8) | 0.62 | 124 | B (14.8) | 0.62 | 124 |
| Westbound | LT | A (7.2) | 0.11 | 14 | A (7.2) | 0.11 | 14 |
| | THRU/RT | A (9.2) | 0.21 | 39 | A (8.3) | 0.24 | 40 |
| Northbound | LT | B (12.6) | 0.16 | 33 | B (12.7) | 0.17 | 33 |
| | THRU/RT | B (11.1) | 0.23 | 55 | B (13.1) | 0.34 | 81 |
| Southbound | LT | B (12.1) | 0.12 | 28 | B (12.7) | 0.16 | 33 |
| | THRU/RT | B (11.3) | 0.29 | 65 | B (11.9) | 0.34 | 77 |
| *Average Intersection LOS (delay in sec)* | | | *B (12.3)* | | | *B (12.4)* | |

**Table 4.4—Future Build Capacity Analysis Results: AM Peak Hour cont.**

| | | No-Build | | | Future Build | | |
|---|---|---|---|---|---|---|---|
| | | LOS (delay in sec) | v/c Ratio | 95th % Queue (ft) | LOS (delay in sec) | v/c Ratio | 95th % Queue (ft) |
| 6 - Cornelia Street & Oriskany Street | | | | | | | |
| Eastbound | THRU/RT | C (21.0) | 0.62 | 383 | C (22.0) | 0.65 | 453 |
| Westbound | THRU/RT | A (3.5) | 0.37 | 13 | A (3.4) | 0.38 | 243 |
| Northbound | LT/THRU/RT | E (66.0) | 0.53 | #99 | E (65.4) | 0.57 | 81 |
| Southbound | LT/THRU/RT | C (22.7) | 0.52 | #72 | B (17.8) | 0.46 | 54 |
| Northeast bound | THRU/RT | E (55.5) | 0.84 | 294 | D (55.0) | 0.83 | 288 |
| *Average Intersection LOS (delay in sec)* | | | *B (19.4)* | | | *B (19.5)* | |
| 104 - Cornelia Street & Proposed Parking Lot | | | | | | | |
| Eastbound | LT/RT | Intersection is not applicable under 'No-Build' scenario | | | b (10.7) | 0.137 | 20 |
| Northbound | LT/THRU | | | | a (7.6) | 0.107 | 20 |
| Southbound | THRU/RT | | | | n/a | n/a | n/a |
| *Average Intersection LOS (delay in sec)* | | | | | | *n/a* | |
| 7 - Cornelia Street & Lafayette Street | | | | | | | |
| Eastbound | LT/THRU/RT | A (9.2) | 0.24 | 67 | Intersection is not applicable under 'Future Build' scenario | | |
| Westbound | LT/THRU/RT | A (9.7) | 0.25 | 67 | | | |
| Northbound | LT/THRU/RT | A (9.3) | 0.08 | 24 | | | |
| Southbound | LT/THRU/RT | B (10.5) | 0.12 | 36 | | | |
| *Average Intersection LOS (delay in sec)* | | | *A (9.6)* | | | | |
| 8 - Cornelia Street & Columbia Street | | | | | | | |
| Eastbound | LT/THRU/RT | B (11.4) | 0.28 | 85 | - | - | - |
| | THRU/RT | - | - | - | A (9.1) | 0.44 | 116 |
| Westbound | LT/THRU/RT | B (10.1) | 0.11 | 36 | - | - | - |
| | LT/THRU | - | - | - | B (13.0) | 0.58 | 138 |
| Northbound | LT/THRU/RT | A (8.4) | 0.08 | 26 | - | - | - |
| | LT/RT | - | - | - | A (6.5) | 0.10 | 21 |
| Southbound | LT/THRU/RT | A (10.0) | 0.16 | 50 | - | - | - |
| *Average Intersection LOS (delay in sec)* | | | *B (10.4)* | | | *B (10.6)* | |
| 105 - Cornelia Street & Proposed Parking Lot | | | | | | | |
| Eastbound | LT/RT | Intersection is not applicable under 'No-Build' scenario | | | b (10.0) | 0.021 | 20 |
| Northbound | LT/THRU | | | | a (0.0) | 0.00 | 0 |
| Southbound | THRU/RT | | | | n/a | n/a | n/a |
| *Average Intersection LOS (delay in sec)* | | | | | | *n/a* | |
| 9 - Cornelia Street & Court Street | | | | | | | |
| Eastbound | LT/THRU/RT | B (19.4) | 0.55 | 161 | B (19.4) | 0.55 | 164 |
| Westbound | LT/THRU/RT | B (14.6) | 0.23 | 65 | B (14.9) | 0.23 | 65 |
| Northbound | LT | A (8.8) | 0.03 | 12 | A (8.8) | 0.03 | 12 |
| | THRU/RT | A (5.8) | 0.03 | 13 | A (5.5) | 0.03 | 12 |
| Southbound | LT | A (8.9) | 0.03 | 14 | A (8.9) | 0.03 | 16 |
| | THRU/RT | A (5.4) | 0.06 | 21 | A (5.4) | 0.06 | 21 |
| *Average Intersection LOS (delay in sec)* | | | *B (16.7)* | | | *B (16.7)* | |
| 10 - Broadway & Oriskany/Liberty Street | | | | | | | |
| Eastbound | LT | A (4.0) | 0.19 | 10 | A (4.1) | 0.19 | m15 |
| | THRU/RT | A (5.3) | 0.46 | 270 | A (6.5) | 0.57 | 116 |
| Westbound | LT | B (12.6) | 0.37 | 89 | C (20.3) | 0.67 | 66 |
| | THRU/RT | B (14.9) | 0.42 | 367 | C (20.9) | 0.49 | 317 |
| Northbound | LT | D (37.0) | 0.21 | 47 | D (40.4) | 0.37 | 88 |
| | THRU/RT | B (18.1) | 0.08 | 23 | C (21.5) | 0.18 | 53 |
| Southbound | LT | D (52.7) | 0.33 | 55 | D (53.3) | 0.33 | 57 |
| | THRU/RT | D (48.5) | 0.49 | 84 | E (59.2) | 0.61 | #132 |
| *Average Intersection LOS (delay in sec)* | | | *B (12.3)* | | | *B (16.7)* | |
| 11 - Broadway & Lafayette Street | | | | | | | |
| Eastbound | LT/THRU/RT | A (7.6) | 0.18 | 52 | A (7.6) | 0.06 | 23 |
| Westbound | LT/THRU/RT | A (8.7) | 0.22 | 66 | A (7.9) | 0.21 | 56 |
| Northbound | LT/THRU/RT | B (12.3) | 0.14 | 43 | B (12.1) | 0.21 | 59 |
| Southbound | LT/THRU/RT | B (11.4) | 0.16 | 46 | B (16.1) | 0.29 | 89 |
| *Average Intersection LOS (delay in sec)* | | | *A (9.4)* | | | *B (11.6)* | |
| 12 - Broadway & Columbia Street | | | | | | | |
| Eastbound | LT/THRU/RT | A (6.2) | 0.20 | 53 | A (8.5) | 0.42 | 117 |
| Westbound | LT/THRU/RT | A (5.4) | 0.09 | 26 | A (7.4) | 0.30 | 73 |
| Northbound | LT/THRU/RT | B (10.4) | 0.22 | 48 | B (10.4) | 0.26 | 51 |
| Southbound | LT/THRU/RT | B (14.6) | 0.23 | 59 | A (9.3) | 0.35 | 62 |
| *Average Intersection LOS (delay in sec)* | | | *A (8.9)* | | | *A (8.6)* | |

**Table 4.4—Future Build Capacity Analysis Results: AM Peak Hour cont.**

| | | No-Build | | | Future Build | | |
|---|---|---|---|---|---|---|---|
| | | LOS (delay in sec) | v/c Ratio | 95th % Queue (ft) | LOS (delay in sec) | v/c Ratio | 95th % Queue (ft) |
| 13 - Broadway & Court Street | | | | | | | |
| Eastbound | LT/THRU | a (8.2) | 0.117 | 9 | a (8.2) | 0.127 | 20 |
| Westbound | THRU/RT | n/a | n/a | n/a | n/a | n/a | n/a |
| Southbound | LT/RT | b (12.3) | 0.112 | 6 | b (12.6) | 0.116 | 20 |
| *Average Intersection LOS (delay in sec)* | | | *n/a* | | | *n/a* | |
| 14 / 15 - Oriskany Street & Washington Street | | | | | | | |
| Eastbound | THRU/RT | n/a | n/a | n/a | n/a | n/a | n/a |
| Westbound | THRU/RT | n/a | n/a | n/a | n/a | n/a | n/a |
| Northbound | RT | a (9.2) | 0.01 | 1 | a (9.3) | 0.03 | 2 |
| Southbound | RT | b (10.4) | 0.01 | 1 | b (10.0) | 0.01 | 1 |
| *Average Intersection LOS (delay in sec)* | | | *n/a* | | | *n/a* | |
| 16 - Washington Street - Lafayette Street | | | | | | | |
| Eastbound | LT/THRU | a (7.6) | 0.006 | 0 | a (7.4) | 0.006 | 0 |
| Westbound | THRU/RT | n/a | n/a | n/a | n/a | n/a | n/a |
| Southbound | LT/RT | b (10.1) | 0.043 | 20 | a (9.0) | 0.034 | 20 |
| *Average Intersection LOS (delay in sec)* | | | *n/a* | | | *n/a* | |
| 17 / 18 - Oriskany Street & Seneca Street | | | | | | | |
| Eastbound | LT | b (11.5) | 0.14 | 12 | b (12.9) | 0.17 | 15 |
| | THRU/RT | n/a | n/a | n/a | n/a | n/a | n/a |
| Westbound | THRU/RT | n/a | n/a | n/a | n/a | n/a | n/a |
| Northbound | RT | a (9.6) | 0.02 | 1 | a (9.3) | 0.02 | 1 |
| Southbound | RT | b (10.7) | 0.14 | 12 | b (10.0) | 0.14 | 12 |
| *Average Intersection LOS (delay in sec)* | | | *n/a* | | | *n/a* | |
| 19 - Seneca Street & Lafayette Street | | | | | | | |
| Eastbound | LT/THRU/RT | a (7.5) | 0.011 | 1 | a (7.4) | 0.011 | 0 |
| Westbound | LT/THRU/RT | a (7.5) | 0.005 | 0 | a (7.3) | 0.005 | 0 |
| Northbound | LT/THRU/RT | b (10.6) | 0.018 | 1 | a (9.6) | 0.015 | 0 |
| Southbound | LT/THRU/RT | a (9.9) | 0.105 | 8 | a (9.3) | 0.093 | 20 |
| *Average Intersection LOS (delay in sec)* | | | *n/a* | | | *n/a* | |
| 20 / 21 - Oriskany Street & Genesee Street | | | | | | | |
| Eastbound | LT | A (3.0) | 0.01 | m1 | A (2.4) | 0.02 | m1 |
| | THRU/RT | A (7.8) | 0.57 | 215 | A (8.9) | 0.63 | 111 |
| Westbound | LT | B (17.8) | 0.42 | 62 | C (30.5) | 0.60 | #90 |
| | THRU/RT | B (11.6) | 0.44 | 296 | B (13.0) | 0.46 | 311 |
| Northbound | LT | E (56.6) | 0.54 | 66 | E (56.0) | 0.55 | 66 |
| | THRU | D (43.2) | 0.64 | 188 | D (41.8) | 0.66 | 209 |
| Southbound | LT | D (37.3) | 0.28 | 55 | C (35.0) | 0.27 | 54 |
| | THRU/RT | D (44.4) | 0.75 | 209 | D (42.7) | 0.75 | 230 |
| *Average Intersection LOS (delay in sec)* | | | *B (19.9)* | | | *C (21.5)* | |
| 22 - Genesee Street & Lafayette/Bleecker Street | | | | | | | |
| Eastbound | LT/THRU/RT | E (55.7) | 0.70 | 97 | D (43.1) | 0.39 | 82 |
| Westbound | LT/THRU/RT | E (56.8) | 0.65 | 197 | D (54.9) | 0.57 | 113 |
| Northbound | LT/THRU/RT | A (9.7) | 0.10 | 51 | A (9.2) | 0.11 | m81 |
| Southbound | LT/THRU/RT | A (5.1) | 0.28 | 98 | A (4.9) | 0.31 | 114 |
| *Average Intersection LOS (delay in sec)* | | | *B (19.6)* | | | *B (12.5)* | |
| 23 - Genesee Street & Columbia/Elizabeth Street | | | | | | | |
| Eastbound | LT/THRU/RT | D (53.0) | 0.71 | 201 | D (54.5) | 0.86 | #359 |
| Westbound | LT/THRU/RT | C (34.9) | 0.32 | 86 | C (31.9) | 0.28 | 106 |
| Northbound | LT/THRU/RT | A (7.6) | 0.11 | 60 | B (12.2) | 0.17 | 92 |
| Southbound | LT/THRU/RT | A (5.4) | 0.27 | 89 | A (7.8) | 0.38 | 114 |
| *Average Intersection LOS (delay in sec)* | | | *B (16.9)* | | | *C (22.0)* | |
| 24 - Genesee Street SB Off-Ramp & Whitesboro Street | | | | | | | |
| Southeast bound | THRU/RT | A (7.7) | 0.12 | 20 | A (7.7) | 0.12 | 20 |
| Northwest bound | LT | B (10.2) | 0.08 | 17 | B (10.2) | 0.08 | 17 |
| | THRU | B (10.4) | 0.16 | 37 | B (10.4) | 0.16 | 37 |
| Southwest bound | LT | A (9.9) | 0.45 | 132 | A (9.9) | 0.45 | 132 |
| | LT/THRU | A (9.9) | 0.45 | 132 | A (9.9) | 0.45 | 132 |
| *Average Intersection LOS (delay in sec)* | | | *A (9.6)* | | | *A (9.6)* | |
| 25 - Genesee Street & Blandina Street | | | | | | | |
| Southbound | LT/THRU/RT | D (49.2) | 0.24 | 46 | D (49.2) | 0.24 | 46 |
| Northeast bound | LT/THRU/RT | A (1.4) | 0.07 | 17 | A (0.2) | 0.09 | 2 |
| Southwest bound | LT/THRU/RT | A (2.7) | 0.17 | 77 | A (2.0) | 0.18 | 60 |
| *Average Intersection LOS (delay in sec)* | | | *A (4.1)* | | | *A (3.2)* | |

**Table 4.4—Future Build Capacity Analysis Results: AM Peak Hour cont.**

| | | No-Build | | | Future Build | | |
|---|---|---|---|---|---|---|---|
| | | **LOS (delay in sec)** | **v/c Ratio** | **95th % Queue (ft)** | **LOS (delay in sec)** | **v/c Ratio** | **95th % Queue (ft)** |
| 26 - Genesee Street & Bank Place | | | | | | | |
| Northeast bound | LT/THRU/RT | A (0.0) | 0.07 | 0 | A (0.0) | 0.08 | 0 |
| Southwest bound | LT/THRU/RT | A (0.1) | 0.10 | 0 | A (0.10) | 0.10 | 0 |
| *Average Intersection LOS (delay in sec)* | | | *A (0.10)* | | | *A (0.10)* | |
| 27 - Genesee Street & Court Street | | | | | | | |
| Southeast bound | LT/THRU/RT | D (47.4) | 0.72 | 186 | C (34.4) | 0.50 | 180 |
| Northwest bound | LT/THRU/RT | D (38.6) | 0.38 | 101 | C (30.8) | 0.25 | 95 |
| Northeast bound | LT/THRU/RT | A (5.2) | 0.14 | 54 | A (8.5) | 0.17 | 70 |
| Southwest bound | LT/THRU/RT | A (5.7) | 0.13 | 77 | B (11.3) | 0.15 | 74 |
| *Average Intersection LOS (delay in sec)* | | | *C (25.2)* | | | *C (21.4)* | |

X - signalized intersection LOS

x- unsignalized intersection LOS

n/a - no conflicting movement, therefore no delays
m - volume for 95th % queue is metered by upstream signal

**Revised Table 4.5—Future Build Capacity Analysis Results: PM Peak Hour**

| | | No-Build | | | Future Build | | |
|---|---|---|---|---|---|---|---|
| | | LOS (delay in sec) | v/c Ratio | 95th % Queue (ft) | LOS (delay in sec) | v/c Ratio | 95th % Queue (ft) |
| 1 - NB Off-Ramp & Court Street | | | | | | | |
| Eastbound | THRU | A (8.1) | 0.22 | 44 | B (11.5) | 0.22 | 54 |
| Westbound | THRU | A (7.9) | 0.21 | 60 | A (7.8) | 0.23 | 70 |
| Northbound | LT | D (49.8) | 0.20 | 49 | D (42.2) | 0.23 | 49 |
| | RT | A (9.2) | 0.43 | 34 | A (9.6) | 0.53 | 38 |
| *Average Intersection LOS (delay in sec)* | | *A (9.4)* | | | *B (10.1)* | | |
| 1A - SB On-Ramp & Court Street | | | | | | | |
| Eastbound | THRU | C (24.4) | 0.18 | 74 | C (25.2) | 0.18 | 75 |
| | RT | A (0.4) | 0.13 | 0 | A (0.5) | 0.14 | 0 |
| Westbound | LT | D (43.9) | 0.67 | 177 | D (40.6) | 0.71 | 121 |
| | THRU | A (1.6) | 0.18 | 6 | A (1.7) | 0.18 | 08 |
| Southbound | LT | D (46.3) | 0.67 | 121 | D (46.3) | 0.67 | 121 |
| | THRU | D (41.2) | 0.37 | 90 | D (41.2) | 0.37 | 90 |
| | RT | A (0.1) | 0.03 | 0 | A (0.1) | 0.03 | 0 |
| *Average Intersection LOS (delay in sec)* | | *C (30.3)* | | | *C (29.9)* | | |
| 2 - State Street & On/Off-Ramp | | | | | | | |
| Eastbound | LT/THRU/RT | D (46.1) | 0.95 | #488 | D (51.7) | 0.98 | #529 |
| Northbound | THRU | B (11.6) | 0.55 | 120 | B (17.8) | 0.66 | 292 |
| | RT | A (1.2) | 0.13 | 8 | A (2.1) | 0.17 | 12 |
| Southbound | LT/THRU | C (27.0) | 0.62 | #154 | E (63.6) | 0.92 | #229 |
| *Average Intersection LOS (delay in sec)* | | *C (28.6)* | | | *D (37.1)* | | |
| 101 - State Street @ Proposed Parking Lot/Garage Access | | | | | | | |
| Eastbound | LT/THRU/RT | Intersection is not applicable under 'No Build' scenario | | | b (12.5) | 0.136 | 20 |
| Westbound | LT/THRU/RT | | | | c (23.0) | 0.380 | 40 |
| Northbound | LT/THRU/RT | | | | a (7.7) | 0.010 | 0 |
| Southbound | LT/THRU/RT | | | | a (9.1) | 0.066 | 20 |
| *Average Intersection LOS (delay in sec)* | | | | | *n/a* | | |
| 3 - State Street & Lafayette Street/ED Access | | | | | | | |
| Eastbound | LT/THRU/RT | C (25.2) | 0.43 | 82 | C (29.9) | 0.47 | 66 |
| Westbound | LT/THRU/RT | C (31.7) | 0.71 | 165 | C (24.0) | 0.03 | 12 |
| Northbound | LT | A (6.1) | 0.02 | m8 | A (1.9) | 0.13 | m10 |
| | THRU/RT | A (7.8) | 0.44 | 126 | A (3.0) | 0.42 | m68 |
| Southbound | LT | B (12.4) | 0.06 | m13 | A (2.8) | 0.01 | m1 |
| | THRU/RT | B (12.0) | 0.15 | m94 | A (3.9) | 0.23 | m64 |
| *Average Intersection LOS (delay in sec)* | | *B (16.7)* | | | *A (5.3)* | | |
| 4 - State Street & Columbia Street | | | | | | | |
| Eastbound | LT/THRU/RT | D (39.2) | 0.76 | 132 | C (28.3) | 0.71 | 194 |
| Westbound | LT/THRU/RT | C (30.4) | 0.70 | 133 | F (75.4) | 1.05 | #436 |
| Northbound | LT | A (7.8) | 0.08 | 28 | B (17.6) | 0.43 | 92 |
| | THRU/RT | A (9.1) | 0.38 | 172 | B (17.2) | 0.57 | 214 |
| Southbound | LT | A (4.8) | 0.03 | m8 | B (13.8) | 0.22 | 53 |
| | THRU/RT | A (4.6) | 0.20 | 56 | B (15.8) | 0.43 | 194 |
| *Average Intersection LOS (delay in sec)* | | *B (18.4)* | | | *D (36.0)* | | |
| 102 - Columbia Street & Proposed Parking Lot | | | | | | | |
| Eastbound | LT/THRU | Intersection is not applicable under 'No Build' scenario | | | a (0.0) | 0.00 | 0 |
| Westbound | THRU/RT | | | | n/a | n/a | n/a |
| Southbound | LT/RT | | | | b (10.5) | 0.052 | 20 |
| *Average Intersection LOS (delay in sec)* | | | | | *n/a* | | |
| 103 - State Street & Proposed Parking Lot | | | | | | | |
| Westbound | LT/RT | Intersection is not applicable under 'No Build' scenario | | | c (18.2) | 0.19 | 20 |
| Northbound | THRU/RT | | | | n/a | n/a | n/a |
| Southbound | THRU/LT | | | | a (8.23) | 0.008 | 0 |
| *Average Intersection LOS (delay in sec)* | | | | | *n/a* | | |
| 5 - State Street & Court Street | | | | | | | |
| Eastbound | LT | B (12.7) | 0.33 | 75 | B (12.8) | 0.39 | 85 |
| | THRU/RT | B (14.9) | 0.34 | 102 | B (13.4) | 0.34 | 97 |
| Westbound | LT | A (9.7) | 0.12 | 30 | A (9.8) | 0.12 | 30 |
| | THRU/RT | B (19.1) | 0.39 | 158 | B (19.8) | 0.39 | 163 |
| Northbound | LT | C (25.1) | 0.28 | 75 | C (32.1) | 0.44 | 85 |
| | THRU/RT | C (22.9) | 0.32 | 134 | C (23.8) | 0.36 | 153 |
| Southbound | LT | C (22.8) | 0.16 | 53 | C (23.4) | 0.20 | 59 |
| | THRU/RT | C (23.7) | 0.43 | 173 | C (29.4) | 0.65 | 279 |
| *Average Intersection LOS (delay in sec)* | | *B (18.5)* | | | *C (20.2)* | | |

**4.5—Future Build Capacity Analysis Results: PM Peak Hour cont.**

| | | No-Build | | | Future Build | | |
|---|---|---|---|---|---|---|---|
| | | LOS (delay in sec) | v/c Ratio | 95th % Queue (ft) | LOS (delay in sec) | v/c Ratio | 95th % Queue (ft) |
| 6 - Cornelia Street & Oriskany Street | | | | | | | |
| Eastbound | THRU/RT | C (27.3) | 0.63 | 368 | D (35.5) | 0.78 | 375 |
| Westbound | THRU/RT | A (4.2) | 0.51 | 156 | A (9.0) | 0.61 | 221 |
| Northbound | LT/THRU/RT | E (67.6) | 0.74 | #189 | F (120.0) | 1.08 | #428 |
| Southbound | LT/THRU/RT | C (25.0) | 0.54 | 154 | C (24.6) | 0.43 | 157 |
| Northeast bound | THRU/RT | E (63.9) | 0.86 | 289 | E (65.7) | 0.88 | #350 |
| *Average Intersection LOS (delay in sec)* | | *C (22.4)* | | | *C (33.4)* | | |
| 104 - Cornelia Street & Proposed Parking Lot | | | | | | | |
| Eastbound | LT/RT | Intersection is not applicable under 'No Build' scenario | | | b (12.1) | 0.440 | 60 |
| Northbound | LT/THRU | | | | a (7.3) | 0.036 | 20 |
| Southbound | THRU/RT | | | | n/a | n/a | n/a |
| *Average Intersection LOS (delay in sec)* | | | | | *n/a* | | |
| 7 - Cornelia Street & Lafayette Street | | | | | | | |
| Eastbound | LT/THRU/RT | A (8.6) | 0.15 | 46 | Intersection is not applicable under 'Future Build' scenario | | |
| Westbound | LT/THRU/RT | B (10.9) | 0.36 | 104 | | | |
| Northbound | LT/THRU/RT | B (11.3) | 0.20 | 54 | | | |
| Southbound | LT/THRU/RT | A (7.9) | 0.07 | m12 | | | |
| *Average Intersection LOS (delay in sec)* | | *B (10.3)* | | | | | |
| 8 - Cornelia Street & Columbia Street | | | | | | | |
| Eastbound | LT/THRU/RT | B (12.6) | 0.33 | 78 | - | - | - |
| | THRU/RT | - | - | - | A (9.1) | 0.42 | 87 |
| Westbound | LT/THRU/RT | B (13.6) | 0.40 | 97 | - | - | - |
| | LT/THRU | - | - | - | C (22.0) | 0.83 | 200 |
| Northbound | LT/THRU/RT | B (10.7) | 0.22 | 53 | - | - | - |
| | LT/RT | - | - | - | A (7.1) | 0.31 | 37 |
| Southbound | LT/THRU/RT | A (8.8) | 0.08 | 22 | - | - | - |
| *Average Intersection LOS (delay in sec)* | | *B (12.3)* | | | *B (15.7)* | | |
| 105 - Cornelia Street & Proposed Parking Lot | | | | | | | |
| Eastbound | LT/RT | Intersection is not applicable under 'No Build' scenario | | | a (9.5) | 0.073 | 20 |
| Northbound | LT/THRU | | | | a (0.0) | 0.00 | 0 |
| Southbound | THRU/RT | | | | n/a | n/a | n/a |
| *Average Intersection LOS (delay in sec)* | | | | | *n/a* | | |
| 9 - Cornelia Street & Court Street | | | | | | | |
| Eastbound | LT/THRU/RT | B (17.2) | 0.40 | 108 | B (17.0) | 0.39 | 108 |
| Westbound | LT/THRU/RT | B (18.0) | 0.47 | 131 | B (18.0) | 0.45 | 128 |
| Northbound | LT | A (9.2) | 0.07 | 24 | A (9.2) | 0.07 | 24 |
| | THRU/RT | A (6.6) | 0.05 | 19 | A (4.5) | 0.05 | 15 |
| Southbound | LT | A (9.1) | 0.05 | 20 | A (9.2) | 0.06 | 23 |
| | THRU/RT | A (4.4) | 0.11 | 27 | A (4.4) | 0.11 | 27 |
| *Average Intersection LOS (delay in sec)* | | *B (15.7)* | | | *B (15.4)* | | |
| 10 - Broadway & Oriskany/Liberty Street | | | | | | | |
| Eastbound | LT | A (2.5) | 0.22 | m11 | A (4.7) | 0.21 | m14 |
| | THRU/RT | A (4.6) | 0.57 | 120 | A (6.9) | 0.67 | m161 |
| Westbound | LT | B (17.8) | 0.19 | 38 | C (20.9) | 0.42 | 32 |
| | THRU/RT | C (28.2) | 0.52 | 443 | C (31.6) | 0.59 | 349 |
| Northbound | LT | D (39.4) | 0.49 | 124 | D (46.1) | 0.70 | #244 |
| | THRU/RT | C (20.4) | 0.17 | 56 | B (19.1) | 0.29 | 107 |
| Southbound | LT | E (60.5) | 0.45 | 71 | E (61.6) | 0.46 | #87 |
| | THRU/RT | D (38.2) | 0.59 | 93 | D (53.5) | 0.70 | #169 |
| *Average Intersection LOS (delay in sec)* | | *B (18.5)* | | | *C (22.2)* | | |
| 11 - Broadway & Lafayette Street | | | | | | | |
| Eastbound | LT/THRU/RT | A (9.2) | 0.22 | 55 | B (10.7) | 0.39 | 75 |
| Westbound | LT/THRU/RT | B (11.1) | 0.42 | 102 | A (5.5) | 0.20 | 31 |
| Northbound | LT/THRU/RT | B (17.6) | 0.46 | 101 | C (24.5) | 0.69 | 164 |
| Southbound | LT/THRU/RT | B (11.4) | 0.16 | 34 | B (16.1) | 0.24 | 59 |
| *Average Intersection LOS (delay in sec)* | | *B (12.6)* | | | *B (16.7)* | | |
| 12 - Broadway & Columbia Street | | | | | | | |
| Eastbound | LT/THRU/RT | A (6.8) | 0.23 | 48 | B (12.1) | 0.60 | 122 |
| Westbound | LT/THRU/RT | A (7.0) | 0.35 | 66 | B (13.0) | 0.69 | 168 |
| Northbound | LT/THRU/RT | B (18.7) | 0.52 | 97 | B (12.1) | 0.31 | 52 |
| Southbound | LT/THRU/RT | B (13.1) | 0.16 | 33 | B (11.3) | 0.36 | 50 |
| *Average Intersection LOS (delay in sec)* | | *B (11.0)* | | | *B (12.4)* | | |

**Table 4.5—Future Build Capacity Analysis Results: PM Peak Hour cont.**

| | | No-Build | | | Future Build | | |
|---|---|---|---|---|---|---|---|
| | | LOS (delay in sec) | v/c Ratio | 95th % Queue (ft) | LOS (delay in sec) | v/c Ratio | 95th % Queue (ft) |
| 13 - Broadway & Court Street | | | | | | | |
| Eastbound | LT/THRU | a (8.7) | 0.081 | 20 | a (8.8) | 0.114 | 20 |
| Westbound | THRU/RT | n/a | n/a | n/a | n/a | n/a | n/a |
| Southbound | LT/RT | c (18.2) | 0.117 | 20 | d (27.8) | 0.559 | 80 |
| *Average Intersection LOS (delay in sec)* | | *n/a* | | | *n/a* | | |
| 14 / 15 - Oriskany Street & Washington Street | | | | | | | |
| Eastbound | THRU/RT | n/a | n/a | n/a | n/a | n/a | n/a |
| Westbound | THRU/RT | n/a | n/a | n/a | n/a | n/a | n/a |
| Northbound | RT | a (9.3) | 0.03 | 20 | a (9.7) | 0.07 | 20 |
| Southbound | RT | b (10.3) | 0.03 | 20 | b (10.9) | 0.02 | 20 |
| *Average Intersection LOS (delay in sec)* | | *n/a* | | | *n/a* | | |
| 16 - Washington Street - Lafayette Street | | | | | | | |
| Eastbound | LT/THRU | a (7.6) | 0.005 | 0 | a (7.3) | 0.004 | 0 |
| Westbound | THRU/RT | *n/a* | *n/a* | *n/a* | n/a | n/a | n/a |
| Southbound | LT/RT | a (9.8) | 0.023 | 20 | a (8.9) | 0.018 | 20 |
| *Average Intersection LOS (delay in sec)* | | *n/a* | | | *n/a* | | |
| 17 / 18 - Oriskany Street & Seneca Street | | | | | | | |
| Eastbound | LT | b (10.3) | 0.05 | 20 | b (10.6) | 0.050 | 20 |
| | THRU/RT | n/a | n/a | n/a | n/a | n/a | n/a |
| Westbound | THRU/RT | n/a | n/a | n/a | n/a | n/a | n/a |
| Northbound | RT | b (10.7) | 0.03 | 20 | b (11.2) | 0.060 | 20 |
| Southbound | RT | b (10.1) | 0.05 | 20 | b (10.6) | 0.360 | 20 |
| *Average Intersection LOS (delay in sec)* | | *n/a* | | | *n/a* | | |
| 19 - Seneca Street & Lafayette Street | | | | | | | |
| Eastbound | LT/THRU/RT | a (7.8) | 0.016 | 0 | a (7.4) | 0.013 | 0 |
| Westbound | LT/THRU/RT | a (7.6) | 0.011 | 0 | a (7.5) | 0.010 | 0 |
| Northbound | LT/THRU/RT | b (11.6) | 0.060 | 20 | b (10.0) | 0.046 | 20 |
| Southbound | LT/THRU/RT | b (10.9) | 0.060 | 20 | a (9.2) | 0.044 | 20 |
| *Average Intersection LOS (delay in sec)* | | *n/a* | | | *n/a* | | |
| 20 / 21 - Oriskany Street & Genesee Street | | | | | | | |
| Eastbound | LT | A (5.0) | 0.00 | m0 | A (4.5) | 0.04 | m2 |
| | THRU/RT | B (15.2) | 0.78 | #298 | C (23.1) | 0.92 | #610 |
| Westbound | LT | D (38.6) | 0.53 | #91 | D (51.6) | 0.66 | #149 |
| | THRU/RT | B (17.0) | 0.41 | 306 | B (19.3) | 0.37 | 269 |
| Northbound | LT | D (38.3) | 0.50 | 117 | C (34.1) | 0.44 | 117 |
| | THRU | D (52.8) | 0.87 | 409 | F (106.6) | 0.94 | #586 |
| Southbound | LT | D (38.8) | 0.34 | 45 | D (52.4) | 0.46 | #58 |
| | THRU/RT | C (31.0) | 0.41 | 160 | C (28.2) | 0.39 | 170 |
| *Average Intersection LOS (delay in sec)* | | *C (25.2)* | | | *D (39.1)* | | |
| 22 - Genesee Street & Lafayette/Bleecker Street | | | | | | | |
| Eastbound | LT/THRU/RT | B (15.1) | 0.31 | 80 | B (15.8) | 0.28 | 67 |
| Westbound | LT/THRU/RT | C (21.9) | 0.57 | 163 | C (21.3) | 0.51 | 123 |
| Northbound | LT/THRU/RT | A (9.7) | 0.33 | 88 | A (9.9) | 0.35 | 97 |
| Southbound | LT/THRU/RT | B (11.3) | 0.42 | 101 | B (12.0) | 0.46 | 114 |
| *Average Intersection LOS (delay in sec)* | | *B (13.2)* | | | *B (12.8)* | | |
| 23 - Genesee Street & Columbia/Elizabeth Street | | | | | | | |
| Eastbound | LT/THRU/RT | B (16.1) | 0.36 | 116 | C (27.1) | 0.72 | 232 |
| Westbound | LT/THRU/RT | B (17.3) | 0.46 | 152 | C (21.0) | 0.59 | 210 |
| Northbound | LT/THRU/RT | B (15.6) | 0.41 | 120 | B (16.9) | 0.49 | 130 |
| Southbound | LT/THRU | B (11.2) | 0.38 | 77 | B (14.7) | 0.49 | 128 |
| *Average Intersection LOS (delay in sec)* | | *B (14.6)* | | | *B (19.1)* | | |
| 24 - Genesee Street SB Off-Ramp & Whitesboro Street | | | | | | | |
| Southeast bound | THRU/RT | A (9.3) | 0.18 | 25 | A (9.3) | 0.18 | 25 |
| Northwest bound | LT | B (10.9) | 0.04 | 12 | B (10.9) | 0.04 | 12 |
| | THRU | B (13.2) | 0.28 | #57 | B (13.2) | 0.28 | #57 |
| Southwest bound | LT | A (4.1) | 0.31 | 32 | A (4.1) | 0.31 | 32 |
| | LT/THRU | A (3.0) | 0.18 | 15 | A (3.0) | 0.18 | 15 |
| *Average Intersection LOS (delay in sec)* | | *A (5.8)* | | | *A (5.8)* | | |
| 25 - Genesee Street & Blandina Street | | | | | | | |
| Southbound | LT/THRU/RT | C (30.5) | 0.27 | 46 | C (30.5) | 0.27 | 46 |
| Northeast bound | LT/THRU/RT | A (2.0) | 0.15 | 35 | A (2.1) | 0.16 | 37 |
| Southwest bound | LT/THRU/RT | A (1.0) | 0.20 | 17 | A (1.1) | 0.20 | 20 |
| *Average Intersection LOS (delay in sec)* | | *A (2.8)* | | | *A (2.9)* | | |

**Table 4.5—Future Build Capacity Analysis Results: PM Peak Hour cont.**

| | | No-Build | | | Future Build | | |
|---|---|---|---|---|---|---|---|
| | | **LOS (delay in sec)** | **v/c Ratio** | **95th % Queue (ft)** | **LOS (delay in sec)** | **v/c Ratio** | **95th % Queue (ft)** |
| 26 - Genesee Street & Bank Place | | | | | | | |
| Northeast bound | LT/THRU/RT | A (0.1) | 0.13 | 0 | A (0.1) | 0.14 | 0 |
| Southwest bound | LT/THRU/RT | A (0.1) | 0.14 | 0 | A (0.1) | 0.14 | 0 |
| *Average Intersection LOS (delay in sec)* | | | *A (0.1)* | | | *A (0.1)* | |
| 27 - Genesee Street & Court Street | | | | | | | |
| Southeast bound | LT/THRU/RT | B (12.4) | 0.24 | 74 | B (11.1) | 0.28 | 76 |
| Northwest bound | LT/THRU/RT | B (14.0) | 0.35 | 110 | B (14.0) | 0.35 | 110 |
| Northeast bound | LT/THRU/RT | B (15.8) | 0.37 | 112 | B (15.9) | 0.38 | 116 |
| Southwest bound | LT/THRU/RT | B (14.9) | 0.35 | 105 | B (14.9) | 0.35 | 105 |
| *Average Intersection LOS (delay in sec)* | | | *B (14.4)* | | | *B (14.1)* | |

X - signalized intersection LOS

x- unsignalized intersection LOS

n/a - no conflicting movement, therefore no delays

m - volume for 95th % queue is metered by upstream signal

# - 95th % volume exceeds capacity, queue may be longer

## 4.7 Mitigation

*Additional modeling scenarios were developed to determine what mitigation measures would be required to improve operations to future no-build scenario operations or better. The focus of this analysis was on the intersections that are expected to operate at an average intersection LOS D or worse and those intersections that have a movement at a LOS E or F.*

*An additional operations and mitigation analysis will be completed at intersections related to the NYS Route 5S project in Section 4.8. This includes:*

- *6 – NYS Route 5S (Oriskany Street) at Cornelia Street*
- *10 – NYS Route 5S (Oriskany Street) at Broadway Street*
- *20/21 – NYS Route 5S (Oriskany Street) at Genesee Street*

*Therefore, remaining intersections needing mitigation, excluding those listed above, include:*

- *2 – State Street at the On/Off-Ramp*
- *3 – State Street at Lafayette Street*
- *4 – State Street at Columbia Street*

*The intersection of State Street at Lafayette Street itself does not warrant mitigation. However, during the PM peak hour, this traffic signal is coordinated with the intersections of State Street at the On/Off Ramp and Columbia Street. Therefore, Lafayette Street will be included in the mitigation scenario to determine the impacts to this intersection.*

***Revised Table 4.6 (****replaces original Tables 4.6 and 4.7 in the original TIS) show the future no-build, build, and mitigation scenario analysis results for the PM peak hours of the intersections noted with decreased LOS in Section 4.6. There were no intersections besides these outside of the NYS Route 5S (Oriskany Street) corridor that require any mitigation. The following is an overview of the proposed changes to provide mitigation at the State Street intersections:*

***State Street at the On/Off-Ramp:*** *A right turn lane is proposed for the eastbound direction. This approach currently consists of a shared left/thru/right turn lane. With the heavy left and right turn traffic, a dedicated turn lane for this approach is required to improve delays at the intersection. Due to the geometric limitations of the intersection, the recommendation is to widen the approach to the south and create a dedicated right turn lane. This improves the intersection from the future build condition from an overall LOS D to a LOS B, which is an improvement from the existing condition LOS C. No changes in timings are proposed.*

***State Street at Lafayette Street:*** *No changes are proposed at this intersection. The changes at the interconnected intersections at the On/Off-Ramp, and Columbia Street, result in negligible changes to this intersection.*

***State Street at Columbia Street:*** *This intersection is proposing a change in timings, shifting some of the green time from State Street to Columbia Street, to accommodate the increase in right turns in the westbound direction. This will bring the overall intersection LOS from a D in the build condition, to a C. The westbound approach goes from an E to a D.*

*Based on discussions with the NYSDOT, while it was not determined necessary to mitigate impacts associated with the MVHS IHC project, it would be beneficial to the roadway network if a center two-way left-turn lane was provided along State Street from the On/Off-ramps to Columbia Street. Since the utility work associated with the MVHS IHC project includes work within the pavement section of State Street in this area, it was agreed that when the pavement and striping for the roadway was restored, a center two-way left-turn lane would be installed.*

*A mitigation plan is included as **Figure 5.1** (at the end of this Addendum) that shows how the physical and geometric mitigation measures along State Street may be incorporated based on current design standards.*

**Revised Table 4.6—Mitigation Analysis Results: PM Peak Hour**

| | | No-Build | | | Future Build | | | Future Mitigation | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | **LOS (delay in sec)** | **v/c Ratio** | **95th % Queue (ft)** | **LOS (delay in sec)** | **v/c Ratio** | **95th % Queue (ft)** | **LOS (delay in sec)** | **v/c Ratio** | **95th % Queue (ft)** |
| 2 - State Street & On/Off-Ramp | | | | | | | | | | |
| Eastbound | LT/THRU/RT | D (46.1) | 0.95 | #488 | D (51.7) | 0.98 | #529 | | | |
| | LT/THRU | | | | | | | C (32.0) | 0.79 | 273 |
| | RT | | | | | | | A (3.7) | 0.33 | 39 |
| Northbound | THRU | B (11.6) | 0.55 | 120 | B (17.8) | 0.66 | 292 | B (14.1) | 0.58 | 301 |
| | RT | A (1.2) | 0.13 | 8 | A (2.1) | 0.17 | 12 | A (2.0) | 0.16 | 13 |
| Southbound | LT/THRU | C (27.0) | 0.62 | #154 | **E (63.6)** | 0.92 | #229 | C (27.0) | 0.65 | #201 |
| *Average Intersection LOS (delay in sec)* | | | *C (28.6)* | | | ***D (37.1)*** | | | *B (18.4)* | |
| 3 - State Street & Lafayette Street/ED Access | | | | | | | | | | |
| Eastbound | LT/THRU/RT | C (25.2) | 0.43 | 82 | C (29.9) | 0.47 | 66 | C (29.9) | 0.47 | 66 |
| Westbound | LT/THRU/RT | C (31.7) | 0.71 | 165 | C (24.0) | 0.03 | 12 | C (24.0) | 0.03 | 12 |
| Northbound | LT | A (6.1) | 0.02 | m8 | A (1.9) | 0.13 | m10 | A (2.2) | 0.13 | m13 |
| | THRU/RT | A (7.8) | 0.44 | 126 | A (3.0) | 0.42 | m68 | A (3.3) | 0.42 | M92 |
| Southbound | LT | B (12.4) | 0.06 | m13 | A (2.8) | 0.01 | m1 | A (3.8) | 0.01 | m3 |
| | THRU/RT | B (12.0) | 0.15 | m94 | A (3.9) | 0.23 | m64 | A (4.4) | 0.23 | 100 |
| *Average Intersection LOS (delay in sec)* | | | *B (16.7)* | | | *A (5.3)* | | | *A (5.7)* | |
| 4 - State Street & Columbia Street | | | | | | | | | | |
| Eastbound | LT/THRU/RT | D (39.2) | 0.76 | 132 | C (28.3) | 0.71 | 194 | C (23.4) | 0.65 | 180 |
| Westbound | LT/THRU/RT | C (30.4) | 0.70 | 133 | **E (75.4)** | 1.05 | #436 | D (54.5) | 0.99 | #414 |
| Northbound | LT | A (7.8) | 0.08 | 28 | **B (17.6)** | 0.43 | 92 | C (20.2) | 0.47 | 98 |
| | THRU/RT | A (9.1) | 0.38 | 172 | B (17.2) | 0.57 | 214 | B (19.2) | 0.60 | 227 |
| Southbound | LT | A (4.8) | 0.03 | m8 | **B (13.8)** | 0.22 | 53 | B (14.6) | 0.25 | 48 |
| | THRU/RT | A (4.6) | 0.20 | 56 | **B (15.8)** | 0.43 | 194 | B (15.7) | 0.46 | 177 |
| *Average Intersection LOS (delay in sec)* | | | *B (18.4)* | | | ***D (36.0)*** | | | *C (29.7)* | |

X - signalized intersection LOS

x- unsignalized intersection LOS

n/a - no conflicting movement, therefore no delays

m - volume for 95th % queue is metered by upstream signal

# - 95th % volume exceeds capacity, queue may be longer

## 4.8 NYS RT 5S Analysis

*The NYSDOT has required a separate analysis for the NYS Route 5S corridor within this project's study area. When the NYS Route 5S project was being analyzed, volumes for the corridor were developed based on 2015 counts adjusted to 2012 volumes that were observed prior to any construction in the area (mainly the NYS Route 5/8/12 project). Compared to the volumes collected in 2018 used for this study, the NYSDOT volumes along NYS Route 5S are higher. To be conservative, in order to identify potential impacts to the NYS Route 5S corridor, the NYSDOT has required that the volumes from the 2019 future build analysis for the NYS Route 5S project be used as the base for evaluating potential impacts to NYS Route 5S and any approaching roadways.*

*Based on conservations with the NYSDOT, the methodology for this analysis is as follows:*

- *Use 2019 future build condition volumes from NYS Route 5S project as a base for analysis, which include a 0.83% growth rate from 2015, the proposed geometric changes to the corridor, an optimized signal timing and phasing plan, and a redistribution of local traffic due to geometric changes to NYS Route 5S (MVHS IHC no-build)*
- *Add MVHS IHC-generated traffic, including any additional redistributed traffic along NYS Route 5S due to roadway closures as noted in Section 4.4, to the 2019 future build condition volumes (see **New Figure 4.6**) (MVHS IHC future build)*
- *Compare results of the new analysis to the MVHS INC no-build condition and mitigate any changes in LOS with a focus on maintaining the NYS Route 5S mainline LOS from the no-build condition*

***New Tables 4.7 and 4.8** show the comparison between the MVHS IHC no-build analysis and the future build with MVHS IHC-generated volumes analysis. All three signalized intersections along Route 5S within the study area require mitigation. The corridor is proposed to have a 95 second cycle length with splits and offsets at each intersection optimized to favor the east and westbound through movements, while maintaining an acceptable LOS on the remaining movements. The following geometric improvements would mitigate the most significant delays along the corridor:*

- *Route 5S at Cornelia Street: An exclusive left turn lane is proposed for the northbound approach, with a permissive left turn phase.*
- *Route 5S at Broadway: No geometry or lane configuration changes are proposed at the intersection.*
- *Route 5S at Genesee Street: An exclusive right turn lane is proposed for the northbound approach, with the approach now consisting of a separated left turn lane, through lane, and right turn lane.*

*The model reports from this analysis is included as part of the **Revised Appendix B**.*

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REVISED FIGURE 4.6

C&S COMPANIES

NOT TO SCALE

NYS RT 5S FUTURE BUILD PEAK HOUR VOLUMES

MOHAWK VALLEY HEALTH SYSTEM

TRAFFIC IMPACT STUDY

**Table 4.7—NYS Route 5S Analysis: AM Peak Hour**

| | | 2019 MVHS IHC No-Build | | | MVHS IHC Future Build | | | MVHS IHC Future Build w/ Mitigation | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | LOS (delay in sec) | v/c Ratio | 95th % Queue (ft) | LOS (delay in sec) | v/c Ratio | 95th % Queue (ft) | LOS (delay in sec) | v/c Ratio | 95th % Queue (ft) |
| 6 - Cornelia Street & Oriskany Street | | | | | | | | | | |
| Eastbound | THRU/RT | C (26.5) | 0.82 | 369 | C (26.9) | 0.82 | 363 | C (26.7) | 0.80 | 359 |
| Westbound | THRU/RT | A (3.9) | 0.38 | 199 | A (5.7) | 0.39 | 198 | A (3.8) | 0.38 | 97 |
| Northbound | LT/THRU/RT | D (42.5) | 0.19 | 35 | D (50.3) | 0.48 | 70 | | | |
| | LT | | | | | | | D (51.9) | 0.40 | 56 |
| | THRU/RT | | | | | | | D (41.6) | 0.14 | 32 |
| Southbound | LT/THRU/RT | B (17.5) | 0.45 | 44 | B (15.9) | 0.44 | 49 | B (18.1) | 0.48 | 52 |
| Northeast bound | THRU/RT | C (33.8) | 0.60 | #322 | D (36.5) | 0.62 | #351 | D (36.3) | 0.60 | #363 |
| *Average Intersection LOS (delay in sec)* | | | *B (18.2)* | | | *C (19.7)* | | | *B (19.0)* | |
| 10 - Broadway & Oriskany/Liberty Street | | | | | | | | | | |
| Eastbound | LT | D (50.5) | 0.38 | m42 | E (59.4) | 0.55 | m64 | E (63.8) | 0.59 | m#76 |
| | THRU/RT | A (9.2) | 0.72 | 158 | B (19.2) | 0.93 | #564 | B (15.4) | 0.90 | 206 |
| Westbound | LT | D (39.5) | 0.53 | m#136 | E (66.9) | 0.82 | #371 | E (63.6) | 0.83 | #386 |
| | THRU/RT | B (14.9) | 0.47 | 432 | B (15.7) | 0.54 | 321 | B (19.6) | 0.52 | 440 |
| Northbound | LT | C (30.9) | 0.16 | 33 | C (28.8) | 0.30 | 67 | C (31.4) | 0.31 | 71 |
| | THRU/RT | B (18.6) | 0.23 | 43 | B (15.5) | 0.15 | 41 | B (16.8) | 0.16 | 44 |
| Southbound | LT | D (47.5) | 0.38 | 55 | D (43.6) | 0.29 | 48 | D (46.7) | 0.30 | 52 |
| | THRU/RT | D (39.2) | 0.31 | 57 | D (45.7) | 0.54 | 95 | D (49.9) | 0.56 | 101 |
| *Average Intersection LOS (delay in sec)* | | | *B (14.9)* | | | *C (23.6)* | | | *C (23.3)* | |
| 20 / 21 - Oriskany Street & Genesee Street | | | | | | | | | | |
| Eastbound | LT | D (54.6) | 0.47 | m64 | D (53.8) | 0.04 | m5 | E (55.4) | 0.04 | m6 |
| | THRU/RT | C (30.9) | 0.94 | #513 | *F (66.4) | 1.09 | m#624 | C (26.9) | 0.99 | #570 |
| Westbound | LT | D (43.7) | 0.51 | #194 | D (54.4) | 0.70 | #253 | E (76.3) | 0.85 | #292 |
| | THRU/RT | C (22.2) | 0.67 | #393 | B (16.2) | 0.62 | #440 | B (15.0) | 0.60 | 407 |
| Northbound | LT | D (39.9) | 0.43 | 54 | D (42.9) | 0.48 | 56 | D (47.9) | 0.51 | 60 |
| | THRU/RT | D (41.9) | 0.74 | 191 | C (34.7) | 0.63 | 178 | | | |
| | THRU | | | | | | | C (34.9) | 0.51 | 154 |
| | RT | | | | | | | A (1.9) | 0.13 | 6 |
| Southbound | LT | C (32.4) | 0.30 | 46 | C (28.5) | 0.24 | 46 | C (28.9) | 0.20 | 47 |
| | THRU/RT | C (36.2) | 0.69 | 168 | D (35.8) | 0.73 | 197 | D (38.3) | 0.75 | 210 |
| *Average Intersection LOS (delay in sec)* | | | *C (31.0)* | | | *D (42.2)* | | | *C (27.6)* | |

**The V/C >1, therefore, the LOS defaults to an F.*

**Table 4.8—NYS Route 5S Analysis: PM Peak Hour**

| | | 2019 MVHS IHC No-Build | | | MVHS IHC Future Build | | | MVHS IHC Future Build w/ Mitigation | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | LOS (delay in sec) | v/c Ratio | 95th % Queue (ft) | LOS (delay in sec) | v/c Ratio | 95th % Queue (ft) | LOS (delay in sec) | v/c Ratio | 95th % Queue (ft) |
| 6 - Cornelia Street & Oriskany Street | | | | | | | | | | |
| Eastbound | THRU/RT | C (32.9) | 0.83 | #526 | D (48.0) | 0.95 | #528 | C (31.1) | 0.82 | 396 |
| Westbound | THRU/RT | B (10.0) | 0.58 | 291 | B (13.5) | 0.71 | 307 | B (13.8) | 0.67 | 265 |
| Northbound | LT/THRU/RT | D (46.8) | 0.29 | 62 | E (65.6) | 0.91 | #253 | | | |
| | LT | | | | | | | E (67.7) | 0.86 | #274 |
| | THRU/RT | | | | | | | C (30.3) | 0.13 | 58 |
| Southbound | LT/THRU/RT | C (28.6) | 0.65 | 113 | B (16.0) | 0.40 | 104 | C (23.5) | 0.45 | 141 |
| Northeast bound | THRU/RT | D (43.3) | 0.72 | #359 | E (59.9) | 0.84 | #296 | E (66.1) | 0.87 | #279 |
| *Average Intersection LOS (delay in sec)* | | | *C (23.4)* | | | *C (33.0)* | | | *C (27.9)* | |
| 10 - Broadway & Oriskany/Liberty Street | | | | | | | | | | |
| Eastbound | LT | D (50.0) | 0.30 | m30 | D (51.5) | 0.56 | m49 | E (66.6) | 0.59 | m64 |
| | THRU/RT | B (15.0) | 0.74 | 308 | C (22.0) | 0.84 | m285 | B (11.4) | 0.81 | 243 |
| Westbound | LT | D (38.7) | 0.50 | m62 | D (55.0) | 0.66 | m#116 | E (62.5) | 0.68 | #138 |
| | THRU/RT | C (20.8) | 0.59 | 444 | C (28.7) | 0.68 | 443 | C (24.4) | 0.66 | 426 |
| Northbound | LT | C (34.1) | 0.53 | 123 | D (40.8) | 0.72 | #187 | D (45.7) | 0.75 | #211 |
| | THRU/RT | B (11.2) | 0.17 | 40 | B (13.2) | 0.29 | 74 | B (15.3) | 0.30 | 83 |
| Southbound | LT | D (50.4) | 0.39 | 54 | E (55.6) | 0.49 | #64 | E (60.2) | 0.51 | #71 |
| | THRU/RT | D (38.8) | 0.27 | 49 | D (46.3) | 0.70 | #123 | D (51.9) | 0.73 | #135 |
| *Average Intersection LOS (delay in sec)* | | | *B (20.0)* | | | *C (28.2)* | | | *C (23.3)* | |
| 20 / 21 - Oriskany Street & Genesee Street | | | | | | | | | | |
| Eastbound | LT | E (64.6) | 0.65 | m72 | D (54.7) | 0.13 | m12 | E (55.7) | 0.14 | m15 |
| | THRU/RT | B (17.4) | 0.81 | #481 | *F (49.8) | 1.04 | #624 | C (21.7) | 0.93 | #565 |
| Westbound | LT | D (53.6) | 0.55 | #92 | F (132.5) | 1.03 | #198 | E (75.7) | 0.78 | #198 |
| | THRU/RT | C (23.3) | 0.63 | 301 | B (17.4) | 0.55 | 313 | B (16.9) | 0.52 | 303 |
| Northbound | LT | C (26.6) | 0.35 | 91 | C (30.1) | 0.44 | 103 | D (38.3) | 0.54 | 114 |
| | THRU/RT | D (53.9) | 0.94 | #496 | E (78.7) | 0.96 | #523 | | | |
| | THRU | | | | | | | D (53.4) | 0.87 | #405 |
| | RT | | | | | | | B (10.3) | 0.23 | 54 |
| Southbound | LT | D (38.2) | 0.37 | 44 | D (38.4) | 0.37 | 44 | D (36.4) | 0.33 | 42 |
| | THRU/RT | C (23.1) | 0.32 | 115 | C (24.2) | 0.40 | 147 | C (28.6) | 0.46 | 160 |
| *Average Intersection LOS (delay in sec)* | | | *C (28.3)* | | | *D (44.8)* | | | *C (27.5)* | |

**The v/c >1, therefore, the LOS defaults to an F.*

# Section 5—Recommendations and Conclusions

*This traffic impact study evaluates the potential transportation impacts to the adjacent transportation system from the proposed MVHS IHC development. The analysis included an evaluation of existing conditions, future no-build conditions, future build conditions, and the development of recommendations to mitigate adverse impacts to study area intersection operations. Based on discussions with the NYSDOT, an additional analysis was conducted focused on the NYS Route 5S (Oriskany Street) corridor. Based on these analyses, it was determined that the proposed development will not have a significant adverse impact on the adjacent transportation network with the following mitigation measures implemented beyond what is expected as part of the development plan for the project. A mitigation plan (**Figure 5.1**) shows how the physical and geometric mitigation measures along State Street and on Cornelia Street may be incorporated based on current design standards.*

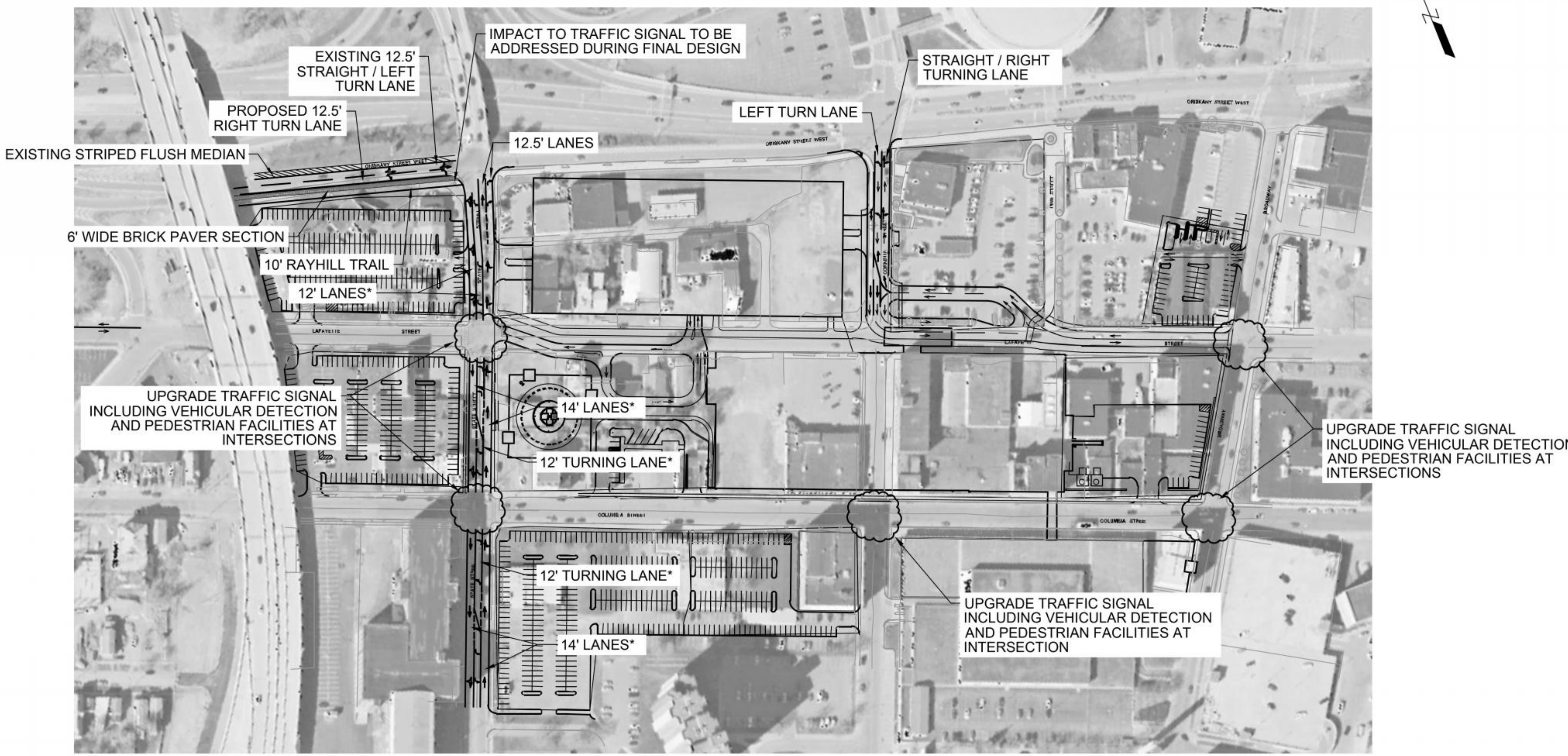
- *Ensure adequate pedestrian facilities are available in the vicinity of the site and at locations that are expected to have increased pedestrian activity as a result of the proposed project as shown in the mitigation plan*
- *Upgrade or replace traffic signals to add detection, actuation, coordination, and pedestrian accommodations at the following locations as shown in the mitigation plan:*
  - *2-State Street & NYS Routes 5/8/12 off/on-ramp*
  - *3-State Street & Lafayette Street*
  - *4-State Street & Columbia Street*
  - *6-Cornelia Street & NYS Route 5S/Oriskany Street*
  - *8-Cornelia Street & Columbia Street*
  - *10-NYS Route 5S/Oriskany Street & Broadway*
  - *11-Broadway & Lafayette Street*
  - *12-Broadway & Columbia Street*
  - *20/21-NYS Route 5S/Oriskany Street & Genesee Street*
- *Optimize signal timings at the following intersections:*
  - *The coordinated system which includes intersections 2 – State Street & NYS Routes 5/8/12 On/Off-Ramps, 3 – State Street & Lafayette Street/Emergency Department Access (PM), and 4 – State Street & Columbia Street*
  - *The coordinated system which includes the intersections of 6 - NYS Route 5S (Oriskany Street) & Cornelia Street, 10 – NYS Route 5S (Oriskany Street) & Broadway, and 20/21 – NYS Route 5S (Oriskany Street) & Genesee Street*
- *Construct a dedicated right turn lane on the eastbound approach to intersection 2 – State Street & On/Off-Ramps as shown in the mitigation plan*
- *Provide a center two-way left-turn lane on State Street from intersection 2 – State Street & NYS Routes 5/8/12 On/Off-Ramps to just south of intersection 4 – State Street & Columbia Street as shown in the mitigation plan*

- *Construct a dedicated left turn lane on the northbound approach to intersection 6 – NYS Route 5S (Oriskany Street) & Cornelia Street*

*While the analysis also indicated a need to install a dedicated right turn lane on the northbound approach to intersection 20/21 – NYS Route 5S (Oriskany Street) and Genesee Street, the NYSDOT noted that the impacts resulting from implementing this mitigation would negatively impact both the MVHS IHC project and the NYS Route 5S project. Specific impacts noted by the NYSDOT include eliminating on-street parking on Genesee Street between NYS Route 5S and Lafayette Street, significantly reducing or eliminating available snow storage areas on Genesee Street, and lengthening the crosswalk and amount of time required for pedestrians to cross Genesee Street. They also acknowledged the similar level of service proposed by this study compared to the analysis conducted for the NYS Route 5S design project. For these reasons, the NYSDOT does not recommend progressing with the mitigation noted to construct a dedicated right turn lane on the northbound approach at this intersection.*

*MVHS will continue to collaborate with NYSDOT, the City of Utica, and Oneida County during the design and permitting phase of development, with the objective of providing safe and efficient operations of the intersections on the state highway system within the MVHS IHC footprint.*

*The study also evaluated the proposed parking included in the development plan and compared it to anticipated peak period demands. Based on this evaluation, the proposed development plan provides adequate, but not excessive parking, for its patients, staff, and visitors.*




CREATED BY: O'BRIEN & GERE ENGINEERS. INC

FIGURE 5.1

NOT TO SCALE

MITIGATION PLAN

MOHAWK VALLEY HEALTH SYSTEM

TRAFFIC IMPACT STUDY

# Revised Appendix A

## Traffic Data

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# 2019 Intersection Count Data

# C&S Companies

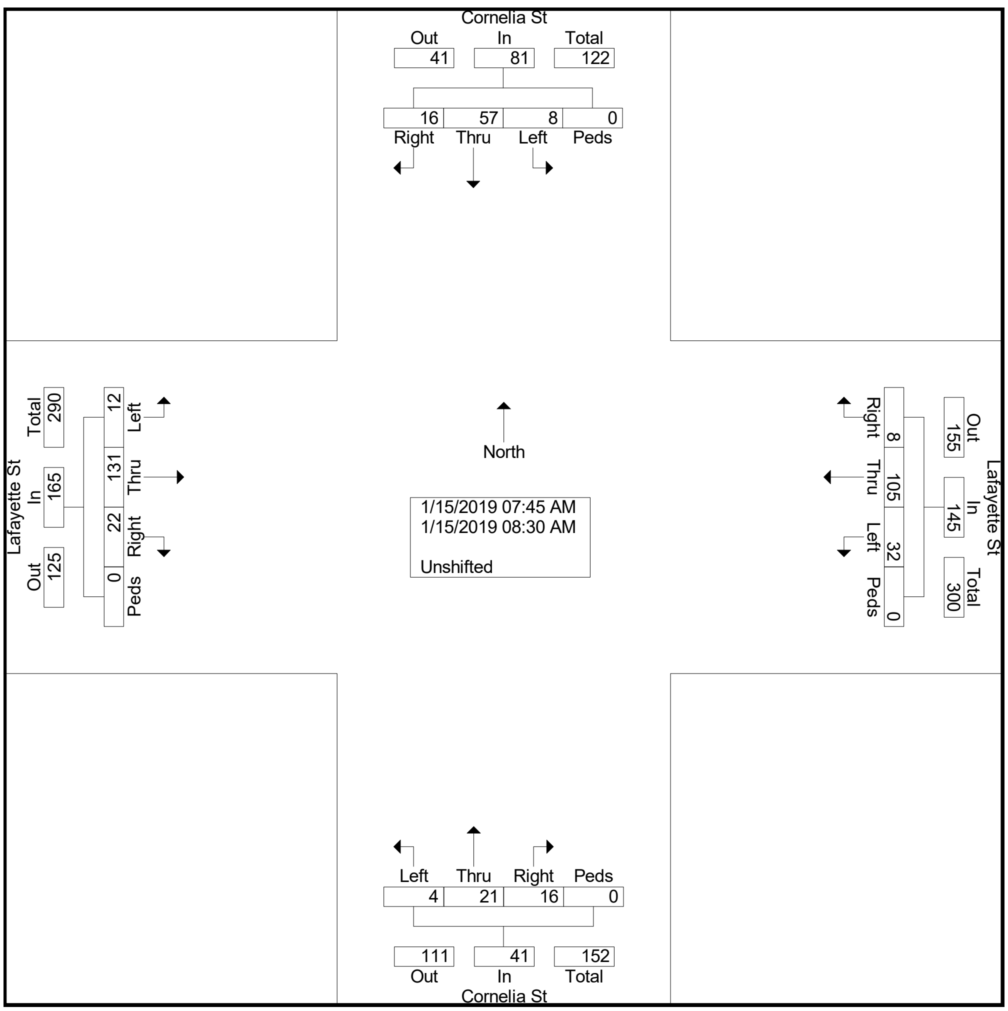
499 Col. Eileen Collins Blvd
Syracuse, NY 13212

Utica, NY
Cornelia St_State St
Tuesday January 15, 2019

File Name : Cornelia_Lafayette
Site Code : 00000000
Start Date : 1/15/2019


Groups Printed- Unshifted

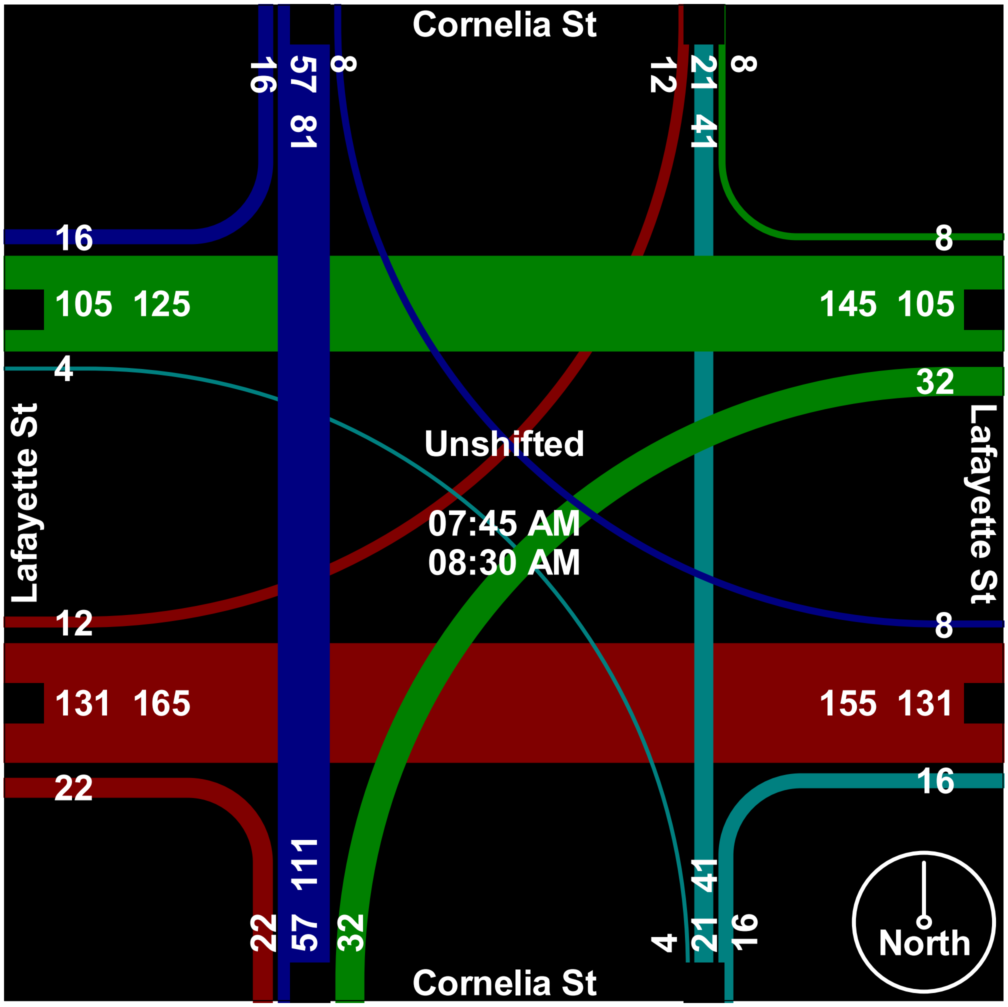
| | Cornelia St From North | | | | | Lafayette St From East | | | | | Cornelia St From South | | | | | Lafayette St From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 07:45 AM | 1 | 9 | 3 | 0 | 13 | 3 | 40 | 7 | 0 | 50 | 6 | 7 | 2 | 0 | 15 | 3 | 31 | 7 | 0 | 41 | 119 |
| Total | 1 | 9 | 3 | 0 | 13 | 3 | 40 | 7 | 0 | 50 | 6 | 7 | 2 | 0 | 15 | 3 | 31 | 7 | 0 | 41 | 119 |
| 08:00 AM | 4 | 19 | 3 | 0 | 26 | 0 | 28 | 11 | 0 | 39 | 2 | 1 | 0 | 0 | 3 | 7 | 32 | 1 | 0 | 40 | 108 |
| 08:15 AM | 4 | 19 | 1 | 0 | 24 | 2 | 21 | 10 | 0 | 33 | 3 | 7 | 0 | 0 | 10 | 9 | 40 | 1 | 0 | 50 | 117 |
| 08:30 AM | 7 | 10 | 1 | 0 | 18 | 3 | 16 | 4 | 0 | 23 | 5 | 6 | 2 | 0 | 13 | 3 | 28 | 3 | 0 | 34 | 88 |
| Grand Total | 16 | 57 | 8 | 0 | 81 | 8 | 105 | 32 | 0 | 145 | 16 | 21 | 4 | 0 | 41 | 22 | 131 | 12 | 0 | 165 | 432 |
| Apprch % | 19.8 | 70.4 | 9.9 | 0 | | 5.5 | 72.4 | 22.1 | 0 | | 39 | 51.2 | 9.8 | 0 | | 13.3 | 79.4 | 7.3 | 0 | | |
| Total % | 3.7 | 13.2 | 1.9 | 0 | 18.8 | 1.9 | 24.3 | 7.4 | 0 | 33.6 | 3.7 | 4.9 | 0.9 | 0 | 9.5 | 5.1 | 30.3 | 2.8 | 0 | 38.2 | |



C&S Companies
499 Col. Eileen Collins Blvd
Syracuse, NY 13212

Utica, NY
Cornelia St_State St
Tuesday January 15, 2019

File Name : Cornelia_Lafayette
Site Code : 00000000
Start Date : 1/15/2019
Page No : 2



# C&S Companies

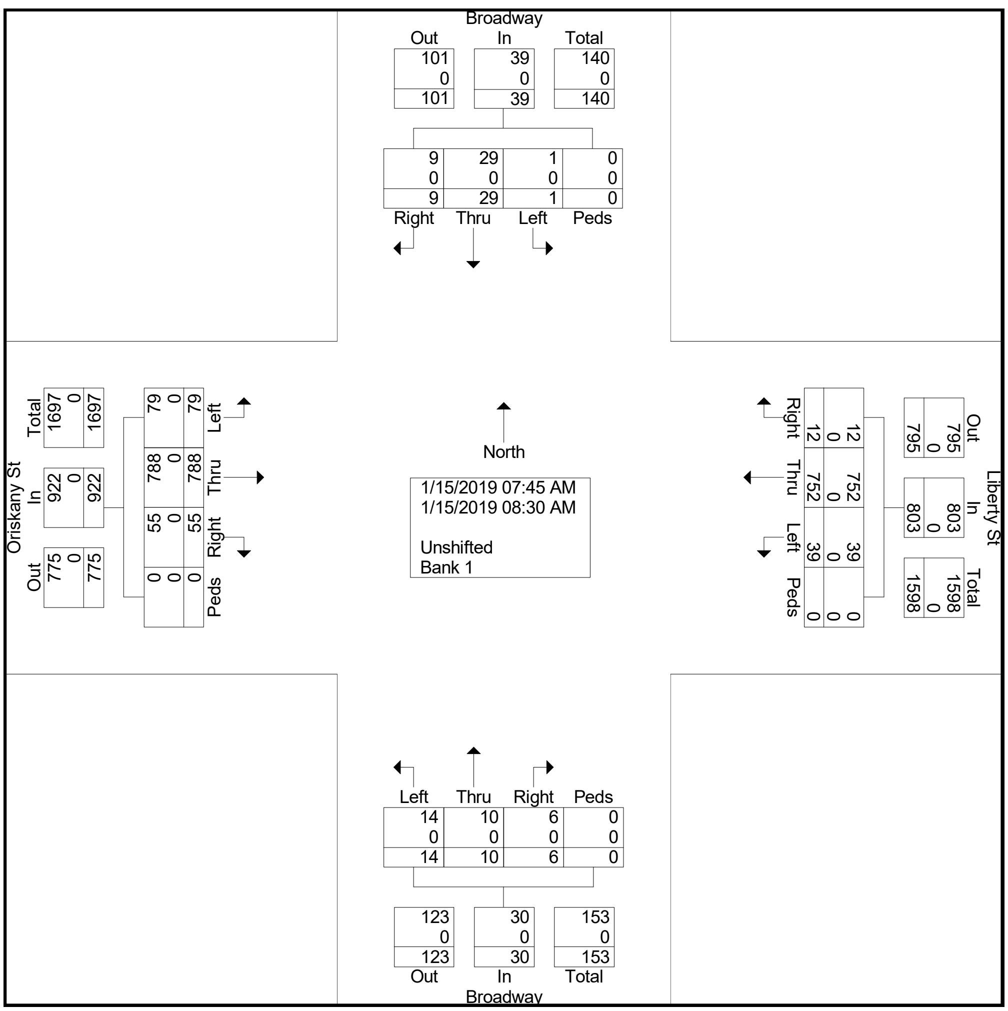
499 Col. Eileen Collins Blvd
Syracuse, NY 13212

Utica, NY
Liberty_Oriskany_Broadway
Tuesday January 15, 2019

File Name : Broadway_Oriskany_Liberty
Site Code : 00000000
Start Date : 1/15/2019


Groups Printed- Unshifted - Bank 1

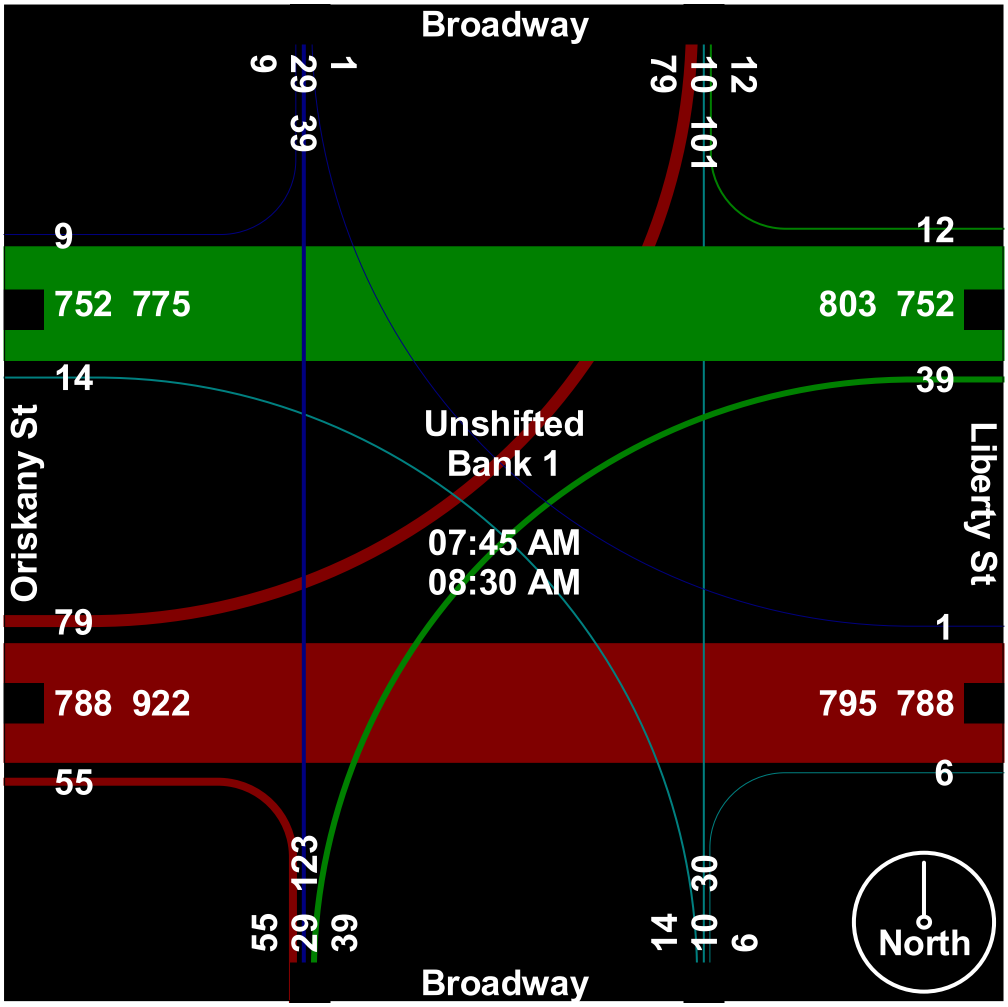
| | Broadway From North | | | | | Liberty St From East | | | | | Broadway From South | | | | | Oriskany St From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 07:45 AM | 3 | 6 | 0 | 0 | 9 | 0 | 221 | 13 | 0 | 234 | 2 | 2 | 4 | 0 | 8 | 9 | 239 | 22 | 0 | 270 | 521 |
| Total | 3 | 6 | 0 | 0 | 9 | 0 | 221 | 13 | 0 | 234 | 2 | 2 | 4 | 0 | 8 | 9 | 239 | 22 | 0 | 270 | 521 |
| 08:00 AM | 1 | 5 | 0 | 0 | 6 | 0 | 187 | 12 | 0 | 199 | 0 | 3 | 5 | 0 | 8 | 12 | 171 | 11 | 0 | 194 | 407 |
| 08:15 AM | 3 | 10 | 0 | 0 | 13 | 0 | 162 | 10 | 0 | 172 | 2 | 3 | 2 | 0 | 7 | 18 | 200 | 30 | 0 | 248 | 440 |
| 08:30 AM | 2 | 8 | 1 | 0 | 11 | 12 | 182 | 4 | 0 | 198 | 2 | 2 | 3 | 0 | 7 | 16 | 178 | 16 | 0 | 210 | 426 |
| Grand Total | 9 | 29 | 1 | 0 | 39 | 12 | 752 | 39 | 0 | 803 | 6 | 10 | 14 | 0 | 30 | 55 | 788 | 79 | 0 | 922 | 1794 |
| Apprch % | 23.1 | 74.4 | 2.6 | 0 | | 1.5 | 93.6 | 4.9 | 0 | | 20 | 33.3 | 46.7 | 0 | | 6 | 85.5 | 8.6 | 0 | | |
| Total % | 0.5 | 1.6 | 0.1 | 0 | 2.2 | 0.7 | 41.9 | 2.2 | 0 | 44.8 | 0.3 | 0.6 | 0.8 | 0 | 1.7 | 3.1 | 43.9 | 4.4 | 0 | 51.4 | |
| Unshifted | 9 | 29 | 1 | 0 | 39 | 12 | 752 | 39 | 0 | 803 | 6 | 10 | 14 | 0 | 30 | 55 | 788 | 79 | 0 | 922 | 1794 |
| % Unshifted | 100 | 100 | 100 | 0 | 100 | 100 | 100 | 100 | 0 | 100 | 100 | 100 | 100 | 0 | 100 | 100 | 100 | 100 | 0 | 100 | 100 |
| Bank 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % Bank 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



C&S Companies
499 Col. Eileen Collins Blvd
Syracuse, NY 13212

Utica, NY
Liberty_Oriskany_Broadway
Tuesday January 15, 2019

File Name : Broadway_Oriskany_Liberty
Site Code : 00000000
Start Date : 1/15/2019
Page No : 2



# C&S Companies

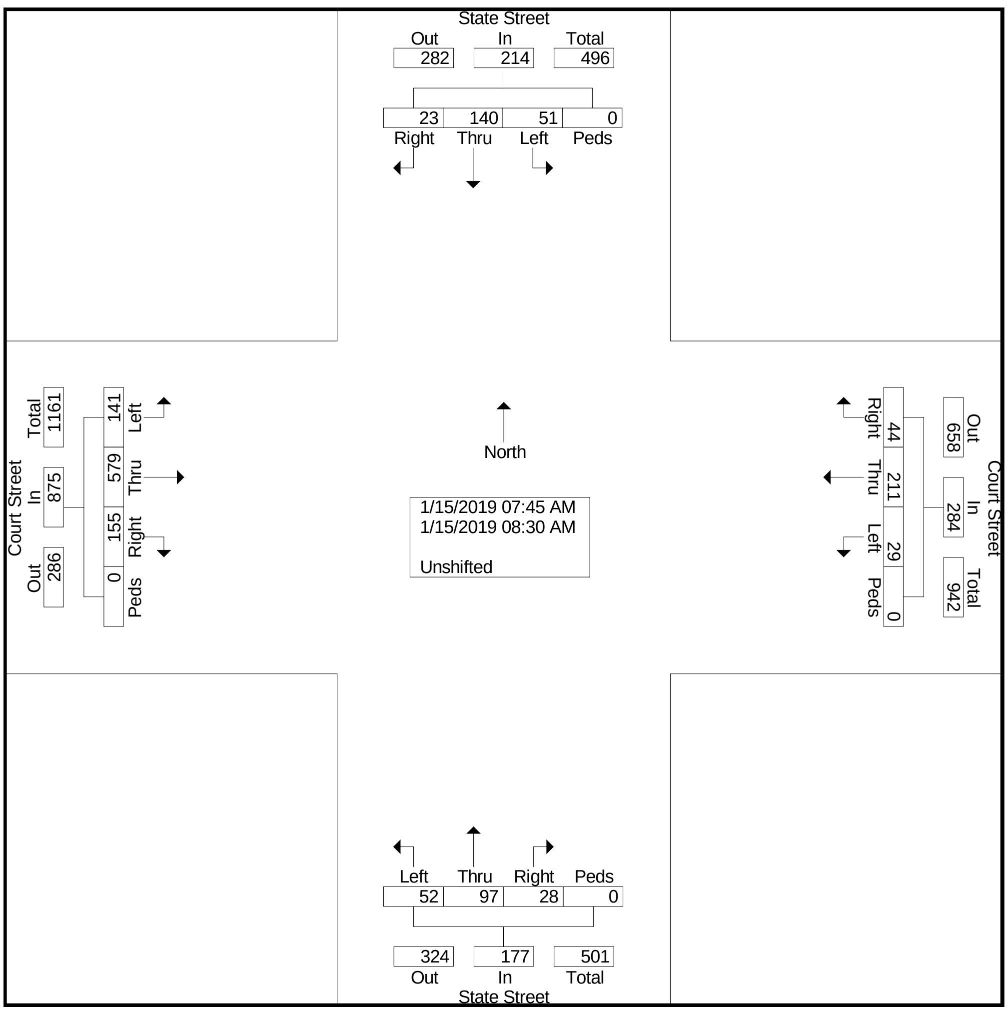
499 Col. Eileen Collins Blvd
Syracuse, NY 13212

Utica, NY
State St_Court St
Tuesday January 15, 2019

File Name : State_Court
Site Code : 00000000
Start Date : 1/15/2019
Page No : 1

Groups Printed- Unshifted

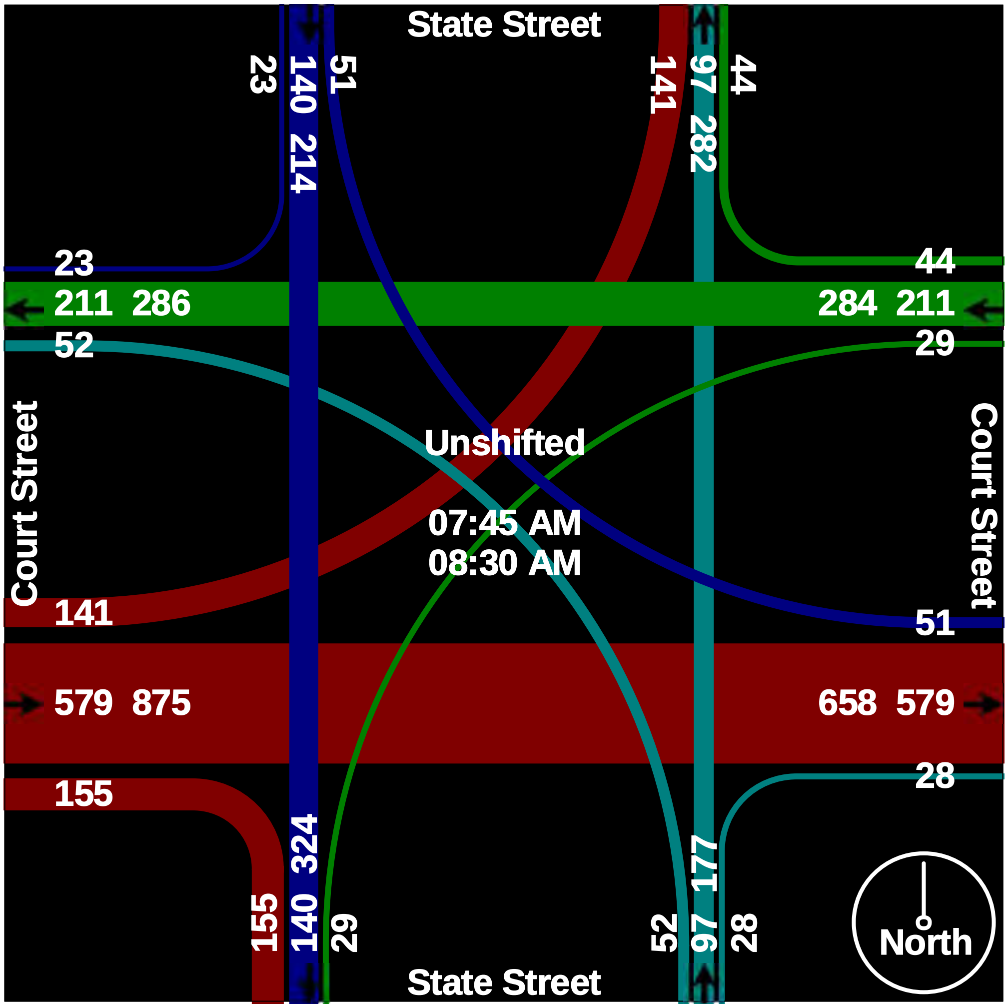
| | State Street From North | | | | | Court Street From East | | | | | State Street From South | | | | | Court Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 07:45 AM | 5 | 48 | 16 | 0 | 69 | 9 | 41 | 12 | 0 | 62 | 7 | 24 | 15 | 0 | 46 | 54 | 163 | 39 | 0 | 256 | 433 |
| Total | 5 | 48 | 16 | 0 | 69 | 9 | 41 | 12 | 0 | 62 | 7 | 24 | 15 | 0 | 46 | 54 | 163 | 39 | 0 | 256 | 433 |
| | | | | | | | | | | | | | | | | | | | | | |
| 08:00 AM | 6 | 30 | 8 | 0 | 44 | 14 | 52 | 5 | 0 | 71 | 6 | 23 | 10 | 0 | 39 | 38 | 122 | 25 | 0 | 185 | 339 |
| 08:15 AM | 6 | 28 | 14 | 0 | 48 | 9 | 51 | 9 | 0 | 69 | 9 | 25 | 16 | 0 | 50 | 36 | 171 | 51 | 0 | 258 | 425 |
| 08:30 AM | 6 | 34 | 13 | 0 | 53 | 12 | 67 | 3 | 0 | 82 | 6 | 25 | 11 | 0 | 42 | 27 | 123 | 26 | 0 | 176 | 353 |
| Grand Total | 23 | 140 | 51 | 0 | 214 | 44 | 211 | 29 | 0 | 284 | 28 | 97 | 52 | 0 | 177 | 155 | 579 | 141 | 0 | 875 | 1550 |
| Apprch % | 10.7 | 65.4 | 23.8 | 0 | | 15.5 | 74.3 | 10.2 | 0 | | 15.8 | 54.8 | 29.4 | 0 | | 17.7 | 66.2 | 16.1 | 0 | | |
| Total % | 1.5 | 9 | 3.3 | 0 | 13.8 | 2.8 | 13.6 | 1.9 | 0 | 18.3 | 1.8 | 6.3 | 3.4 | 0 | 11.4 | 10 | 37.4 | 9.1 | 0 | 56.5 | |



C&S Companies
499 Col. Eileen Collins Blvd
Syracuse, NY 13212

Utica, NY
State St_Court St
Tuesday January 15, 2019

File Name : State_Court
Site Code : 00000000
Start Date : 1/15/2019
Page No : 2



# July 2018 Intersection Count Data

Utica, NY
NB Off Ramp/Court St
Wednesday, July 18, 2018
Location: 43.101475, -75.240782

**TRI-STATE TRAFFIC DATA**
www.TSTData.com
184 Baker Rd
Coatesville, Pennsylvania, United States 19320
610-466-1469 jvetterlein@tstdata.com
Serving Transportation Professionals Since 1995

Count Name: 1. NB Off Ramp & Court St
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 1

## Turning Movement Data

| Start Time | Court St Westbound | | | | | NB OFF Ramp Northbound | | | | | | Court St Eastbound | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | U-Turn | Peds | App. Total | Int. Total |
| 7:00 AM | 30 | 0 | 0 | 0 | 30 | 43 | 0 | 5 | 0 | 2 | 48 | 0 | 0 | 30 | 0 | 0 | 30 | 108 |
| 7:15 AM | 39 | 0 | 0 | 0 | 39 | 63 | 0 | 4 | 0 | 3 | 67 | 0 | 0 | 40 | 0 | 0 | 40 | 146 |
| 7:30 AM | 42 | 0 | 0 | 0 | 42 | 65 | 0 | 4 | 0 | 5 | 69 | 0 | 0 | 45 | 0 | 0 | 45 | 156 |
| 7:45 AM | 61 | 0 | 0 | 0 | 61 | 131 | 0 | 7 | 0 | 1 | 138 | 0 | 0 | 87 | 0 | 0 | 87 | 286 |
| Hourly Total | 172 | 0 | 0 | 0 | 172 | 302 | 0 | 20 | 0 | 11 | 322 | 0 | 0 | 202 | 0 | 0 | 202 | 696 |
| 8:00 AM | 71 | 0 | 0 | 0 | 71 | 105 | 0 | 6 | 0 | 2 | 111 | 0 | 0 | 67 | 0 | 0 | 67 | 249 |
| 8:15 AM | 58 | 0 | 0 | 0 | 58 | 134 | 1 | 5 | 0 | 3 | 140 | 0 | 0 | 84 | 0 | 0 | 84 | 282 |
| 8:30 AM | 60 | 0 | 0 | 0 | 60 | 97 | 0 | 5 | 0 | 6 | 102 | 0 | 0 | 66 | 0 | 0 | 66 | 228 |
| 8:45 AM | 73 | 0 | 0 | 0 | 73 | 84 | 2 | 9 | 0 | 2 | 95 | 0 | 0 | 71 | 0 | 0 | 71 | 239 |
| Hourly Total | 262 | 0 | 0 | 0 | 262 | 420 | 3 | 25 | 0 | 13 | 448 | 0 | 0 | 288 | 0 | 0 | 288 | 998 |
| 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:00 PM | 157 | 0 | 0 | 0 | 157 | 37 | 3 | 10 | 0 | 6 | 50 | 0 | 0 | 91 | 0 | 0 | 91 | 298 |
| 4:15 PM | 113 | 0 | 0 | 0 | 113 | 44 | 1 | 7 | 0 | 3 | 52 | 0 | 0 | 91 | 0 | 0 | 91 | 256 |
| 4:30 PM | 152 | 0 | 0 | 0 | 152 | 40 | 2 | 10 | 0 | 2 | 52 | 0 | 0 | 84 | 0 | 0 | 84 | 288 |
| 4:45 PM | 125 | 0 | 0 | 1 | 125 | 31 | 5 | 5 | 0 | 7 | 41 | 0 | 0 | 66 | 0 | 0 | 66 | 232 |
| Hourly Total | 547 | 0 | 0 | 1 | 547 | 152 | 11 | 32 | 0 | 18 | 195 | 0 | 0 | 332 | 0 | 0 | 332 | 1074 |
| 5:00 PM | 135 | 0 | 0 | 0 | 135 | 35 | 0 | 8 | 0 | 13 | 43 | 0 | 0 | 82 | 0 | 0 | 82 | 260 |
| 5:15 PM | 92 | 0 | 0 | 0 | 92 | 40 | 1 | 9 | 0 | 6 | 50 | 0 | 0 | 89 | 0 | 0 | 89 | 231 |
| 5:30 PM | 68 | 0 | 0 | 0 | 68 | 40 | 1 | 4 | 0 | 4 | 45 | 0 | 0 | 54 | 0 | 0 | 54 | 167 |
| 5:45 PM | 85 | 0 | 0 | 0 | 85 | 38 | 0 | 14 | 0 | 3 | 52 | 0 | 0 | 60 | 0 | 0 | 60 | 197 |
| Hourly Total | 380 | 0 | 0 | 0 | 380 | 153 | 2 | 35 | 0 | 26 | 190 | 0 | 0 | 285 | 0 | 0 | 285 | 855 |
| 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| Grand Total | 1361 | 0 | 0 | 1 | 1361 | 1027 | 16 | 112 | 0 | 68 | 1155 | 0 | 0 | 1108 | 0 | 0 | 1108 | 3624 |
| Approach % | 100.0 | 0.0 | 0.0 | - | - | 88.9 | 1.4 | 9.7 | 0.0 | - | - | 0.0 | 0.0 | 100.0 | 0.0 | - | - | - |
| Total % | 37.6 | 0.0 | 0.0 | - | 37.6 | 28.3 | 0.4 | 3.1 | 0.0 | - | 31.9 | 0.0 | 0.0 | 30.6 | 0.0 | - | 30.6 | - |
| Lights | 1339 | 0 | 0 | - | 1339 | 1019 | 16 | 110 | 0 | - | 1145 | 0 | 0 | 1078 | 0 | - | 1078 | 3562 |
| % Lights | 98.4 | - | - | - | 98.4 | 99.2 | 100.0 | 98.2 | - | - | 99.1 | - | - | 97.3 | - | - | 97.3 | 98.3 |
| Buses | 7 | 0 | 0 | - | 7 | 4 | 0 | 1 | 0 | - | 5 | 0 | 0 | 10 | 0 | - | 10 | 22 |
| % Buses | 0.5 | - | - | - | 0.5 | 0.4 | 0.0 | 0.9 | - | - | 0.4 | - | - | 0.9 | - | - | 0.9 | 0.6 |
| Trucks | 11 | 0 | 0 | - | 11 | 4 | 0 | 1 | 0 | - | 5 | 0 | 0 | 17 | 0 | - | 17 | 33 |
| % Trucks | 0.8 | - | - | - | 0.8 | 0.4 | 0.0 | 0.9 | - | - | 0.4 | - | - | 1.5 | - | - | 1.5 | 0.9 |
| Bicycles on Road | 4 | 0 | 0 | - | 4 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 3 | 0 | - | 3 | 7 |
| % Bicycles on Road | 0.3 | - | - | - | 0.3 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | - | - | 0.3 | - | - | 0.3 | 0.2 |
| Bicycles on Crosswalk | - | - | - | 0 | - | - | - | - | - | 11 | - | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | 0.0 | - | - | - | - | - | 16.2 | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | 1 | - | - | - | - | - | 57 | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | - | 83.8 | - | - | - | - | - | - | - | - |

Utica, NY
NB Off Ramp/Court St
Wednesday, July 18, 2018
Location: 43.101475, -75.240782

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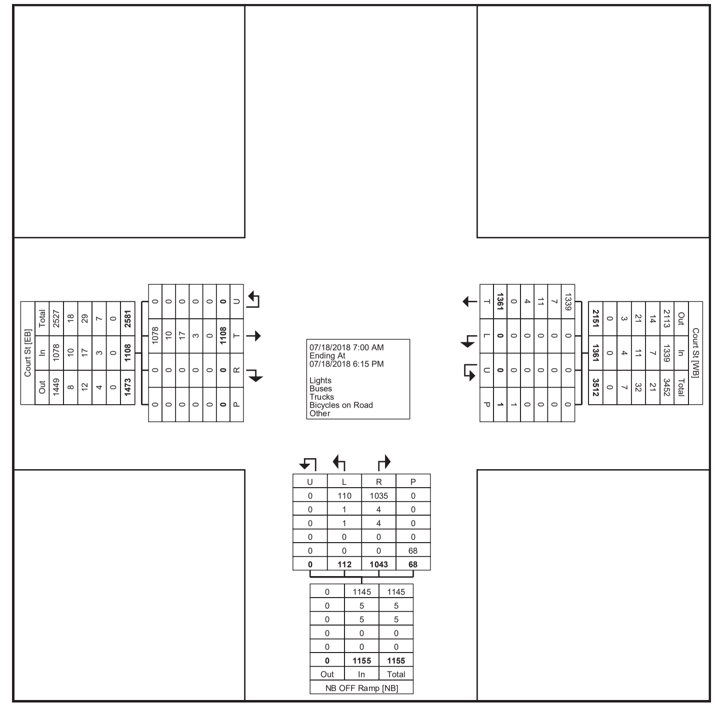


Turning Movement Data Plot

Utica, NY
NB Off Ramp/Court St
Wednesday, July 18, 2018
Location: 43.101475, -75.240782

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Page No: 3

## Turning Movement Peak Hour Data (7:45 AM)

| Start Time | Court St Westbound | | | | | NB OFF Ramp Northbound | | | | | | Court St Eastbound | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | U-Turn | Peds | App. Total | Int. Total |
| 7:45 AM | 61 | 0 | 0 | 0 | 61 | 131 | 0 | 7 | 0 | 1 | 138 | 0 | 0 | 87 | 0 | 0 | 87 | 286 |
| 8:00 AM | 71 | 0 | 0 | 0 | 71 | 105 | 0 | 6 | 0 | 2 | 111 | 0 | 0 | 67 | 0 | 0 | 67 | 249 |
| 8:15 AM | 58 | 0 | 0 | 0 | 58 | 134 | 1 | 5 | 0 | 3 | 140 | 0 | 0 | 84 | 0 | 0 | 84 | 282 |
| 8:30 AM | 60 | 0 | 0 | 0 | 60 | 97 | 0 | 5 | 0 | 6 | 102 | 0 | 0 | 66 | 0 | 0 | 66 | 228 |
| Total | 250 | 0 | 0 | 0 | 250 | 467 | 1 | 23 | 0 | 12 | 491 | 0 | 0 | 304 | 0 | 0 | 304 | 1045 |
| Approach % | 100.0 | 0.0 | 0.0 | - | - | 95.1 | 0.2 | 4.7 | 0.0 | - | - | 0.0 | 0.0 | 100.0 | 0.0 | - | - | - |
| Total % | 23.9 | 0.0 | 0.0 | - | 23.9 | 44.7 | 0.1 | 2.2 | 0.0 | - | 47.0 | 0.0 | 0.0 | 29.1 | 0.0 | - | 29.1 | - |
| PHF | 0.880 | 0.000 | 0.000 | - | 0.880 | 0.871 | 0.250 | 0.821 | 0.000 | - | 0.877 | 0.000 | 0.000 | 0.874 | 0.000 | - | 0.874 | 0.913 |
| Lights | 241 | 0 | 0 | - | 241 | 464 | 1 | 22 | 0 | - | 487 | 0 | 0 | 297 | 0 | - | 297 | 1025 |
| % Lights | 96.4 | - | - | - | 96.4 | 99.4 | 100.0 | 95.7 | - | - | 99.2 | - | - | 97.7 | - | - | 97.7 | 98.1 |
| Buses | 3 | 0 | 0 | - | 3 | 2 | 0 | 1 | 0 | - | 3 | 0 | 0 | 2 | 0 | - | 2 | 8 |
| % Buses | 1.2 | - | - | - | 1.2 | 0.4 | 0.0 | 4.3 | - | - | 0.6 | - | - | 0.7 | - | - | 0.7 | 0.8 |
| Trucks | 3 | 0 | 0 | - | 3 | 1 | 0 | 0 | 0 | - | 1 | 0 | 0 | 5 | 0 | - | 5 | 9 |
| % Trucks | 1.2 | - | - | - | 1.2 | 0.2 | 0.0 | 0.0 | - | - | 0.2 | - | - | 1.6 | - | - | 1.6 | 0.9 |
| Bicycles on Road | 3 | 0 | 0 | - | 3 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 3 |
| % Bicycles on Road | 1.2 | - | - | - | 1.2 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | - | - | 0.0 | - | - | 0.0 | 0.3 |
| Bicycles on Crosswalk | - | - | - | 0 | - | - | - | - | - | 1 | - | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | 8.3 | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | 0 | - | - | - | - | - | 11 | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | 91.7 | - | - | - | - | - | - | - | - |

Utica, NY
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Wednesday, July 18, 2018
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Start Date: 07/18/2018
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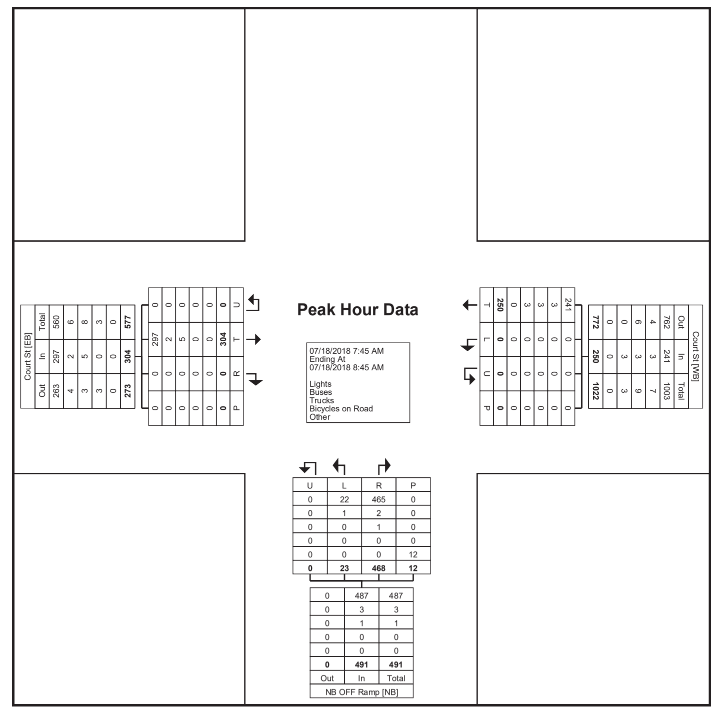


Turning Movement Peak Hour Data Plot (7:45 AM)

Utica, NY
NB Off Ramp/Court St
Wednesday, July 18, 2018
Location: 43.101475, -75.240782

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Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 5

## Turning Movement Peak Hour Data (4:00 PM)

| | Court St Westbound | | | | | NB OFF Ramp Northbound | | | | | | Court St Eastbound | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | U-Turn | Peds | App. Total | Int. Total |
| 4:00 PM | 157 | 0 | 0 | 0 | 157 | 37 | 3 | 10 | 0 | 6 | 50 | 0 | 0 | 91 | 0 | 0 | 91 | 298 |
| 4:15 PM | 113 | 0 | 0 | 0 | 113 | 44 | 1 | 7 | 0 | 3 | 52 | 0 | 0 | 91 | 0 | 0 | 91 | 256 |
| 4:30 PM | 152 | 0 | 0 | 0 | 152 | 40 | 2 | 10 | 0 | 2 | 52 | 0 | 0 | 84 | 0 | 0 | 84 | 288 |
| 4:45 PM | 125 | 0 | 0 | 1 | 125 | 31 | 5 | 5 | 0 | 7 | 41 | 0 | 0 | 66 | 0 | 0 | 66 | 232 |
| Total | 547 | 0 | 0 | 1 | 547 | 152 | 11 | 32 | 0 | 18 | 195 | 0 | 0 | 332 | 0 | 0 | 332 | 1074 |
| Approach % | 100.0 | 0.0 | 0.0 | - | - | 77.9 | 5.6 | 16.4 | 0.0 | - | - | 0.0 | 0.0 | 100.0 | 0.0 | - | - | - |
| Total % | 50.9 | 0.0 | 0.0 | - | 50.9 | 14.2 | 1.0 | 3.0 | 0.0 | - | 18.2 | 0.0 | 0.0 | 30.9 | 0.0 | - | 30.9 | - |
| PHF | 0.871 | 0.000 | 0.000 | - | 0.871 | 0.864 | 0.550 | 0.800 | 0.000 | - | 0.938 | 0.000 | 0.000 | 0.912 | 0.000 | - | 0.912 | 0.901 |
| Lights | 545 | 0 | 0 | - | 545 | 148 | 11 | 32 | 0 | - | 191 | 0 | 0 | 327 | 0 | - | 327 | 1063 |
| % Lights | 99.6 | - | - | - | 99.6 | 97.4 | 100.0 | 100.0 | - | - | 97.9 | - | - | 98.5 | - | - | 98.5 | 99.0 |
| Buses | 1 | 0 | 0 | - | 1 | 2 | 0 | 0 | 0 | - | 2 | 0 | 0 | 2 | 0 | - | 2 | 5 |
| % Buses | 0.2 | - | - | - | 0.2 | 1.3 | 0.0 | 0.0 | - | - | 1.0 | - | - | 0.6 | - | - | 0.6 | 0.5 |
| Trucks | 1 | 0 | 0 | - | 1 | 2 | 0 | 0 | 0 | - | 2 | 0 | 0 | 3 | 0 | - | 3 | 6 |
| % Trucks | 0.2 | - | - | - | 0.2 | 1.3 | 0.0 | 0.0 | - | - | 1.0 | - | - | 0.9 | - | - | 0.9 | 0.6 |
| Bicycles on Road | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Bicycles on Road | 0.0 | - | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | - | - | 0.0 | - | - | 0.0 | 0.0 |
| Bicycles on Crosswalk | - | - | - | 0 | - | - | - | - | - | 2 | - | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | 0.0 | - | - | - | - | - | 11.1 | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | 1 | - | - | - | - | - | 16 | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | - | 88.9 | - | - | - | - | - | - | - | - |

Utica, NY
NB Off Ramp/Court St
Wednesday, July 18, 2018
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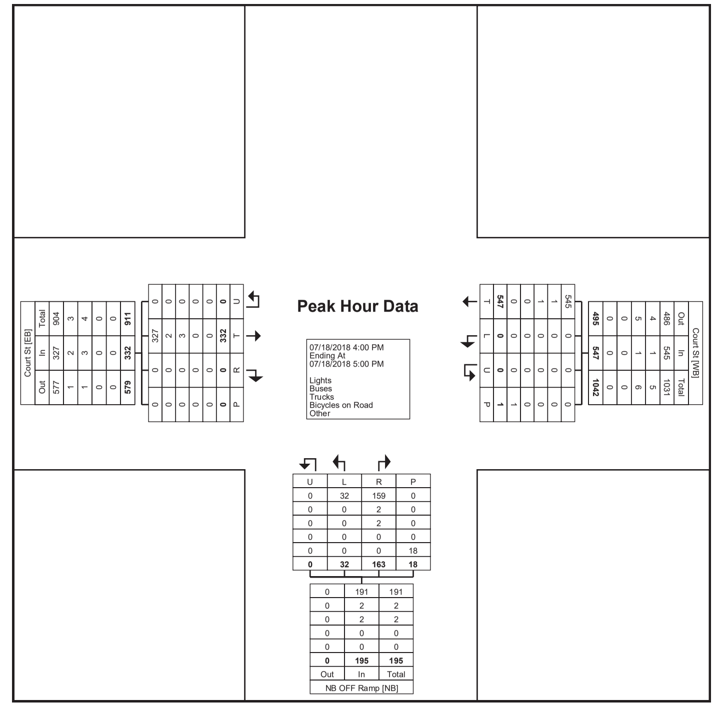
Page No: 6




Turning Movement Peak Hour Data Plot (4:00 PM)

Utica, NY
NB Off Ramp/Court St
Wednesday, July 18, 2018
Location: 43.101475, -75.240782

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Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 7

Utica, NY
State St/EB Off Ramp
Wednesday, July 18, 2018
Location: 43.105088, -75.237254

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Count Name: 2. State St. and EB off-ramp
Site Code: Utica,NY
Start Date: 07/18/2018
Page No: 1

# Turning Movement Data

| | State St Southbound | | | | | | EB on ramp Westbound | | | | | | State St. Northbound | | | | | | EB off ramp Eastbound | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Peds | App. Total | Right | Thru | Left | U-Turn | Peds | App. Total | Right | Thru | Left | U-Turn | Peds | App. Total | Right | Thru | Left | U-Turn | Peds | App. Total | Int. Total |
| 7:00 AM | 0 | 0 | 35 | 0 | 0 | 35 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 26 | 0 | 0 | 0 | 31 | 29 | 1 | 27 | 0 | 0 | 57 | 123 |
| 7:15 AM | 1 | 2 | 43 | 0 | 0 | 46 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 28 | 0 | 0 | 0 | 39 | 45 | 5 | 25 | 0 | 0 | 75 | 160 |
| 7:30 AM | 0 | 8 | 48 | 0 | 0 | 56 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 32 | 0 | 0 | 0 | 38 | 53 | 5 | 33 | 0 | 0 | 91 | 185 |
| 7:45 AM | 0 | 3 | 49 | 0 | 0 | 52 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 42 | 0 | 0 | 0 | 59 | 90 | 6 | 30 | 0 | 0 | 126 | 237 |
| Hourly Total | 1 | 13 | 175 | 0 | 0 | 189 | 0 | 0 | 0 | 0 | 0 | 0 | 39 | 128 | 0 | 0 | 0 | 167 | 217 | 17 | 115 | 0 | 0 | 349 | 705 |
| 8:00 AM | 0 | 2 | 32 | 0 | 0 | 34 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 52 | 0 | 0 | 0 | 66 | 79 | 0 | 38 | 0 | 0 | 117 | 217 |
| 8:15 AM | 0 | 8 | 35 | 0 | 0 | 43 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 35 | 0 | 0 | 1 | 43 | 70 | 1 | 33 | 0 | 0 | 104 | 190 |
| 8:30 AM | 0 | 12 | 35 | 0 | 0 | 47 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 41 | 0 | 0 | 0 | 51 | 53 | 0 | 42 | 0 | 0 | 95 | 193 |
| 8:45 AM | 0 | 4 | 28 | 0 | 0 | 32 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 47 | 0 | 0 | 1 | 59 | 66 | 1 | 42 | 0 | 0 | 109 | 200 |
| Hourly Total | 0 | 26 | 130 | 0 | 0 | 156 | 0 | 0 | 0 | 0 | 0 | 0 | 44 | 175 | 0 | 0 | 2 | 219 | 268 | 2 | 155 | 0 | 0 | 425 | 800 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 4:00 PM | 0 | 1 | 40 | 0 | 0 | 41 | 0 | 0 | 0 | 0 | 0 | 0 | 21 | 125 | 0 | 0 | 0 | 146 | 36 | 1 | 95 | 0 | 0 | 132 | 319 |
| 4:15 PM | 0 | 0 | 35 | 0 | 0 | 35 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | 79 | 0 | 0 | 0 | 105 | 37 | 7 | 105 | 0 | 0 | 149 | 289 |
| 4:30 PM | 0 | 2 | 37 | 0 | 0 | 39 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 135 | 0 | 0 | 0 | 153 | 49 | 6 | 95 | 0 | 0 | 150 | 342 |
| 4:45 PM | 0 | 1 | 28 | 0 | 0 | 29 | 0 | 0 | 0 | 0 | 0 | 0 | 31 | 93 | 0 | 0 | 1 | 124 | 49 | 2 | 103 | 0 | 0 | 154 | 307 |
| Hourly Total | 0 | 4 | 140 | 0 | 0 | 144 | 0 | 0 | 0 | 0 | 0 | 0 | 96 | 432 | 0 | 0 | 1 | 528 | 171 | 16 | 398 | 0 | 0 | 585 | 1257 |
| 5:00 PM | 0 | 1 | 31 | 0 | 0 | 32 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 120 | 0 | 0 | 2 | 140 | 30 | 4 | 107 | 0 | 0 | 141 | 313 |
| 5:15 PM | 0 | 0 | 42 | 0 | 0 | 42 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 89 | 0 | 0 | 0 | 104 | 35 | 5 | 107 | 0 | 0 | 147 | 293 |
| 5:30 PM | 0 | 1 | 40 | 0 | 0 | 41 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 64 | 0 | 0 | 0 | 74 | 40 | 2 | 82 | 0 | 0 | 124 | 239 |
| 5:45 PM | 0 | 3 | 14 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 51 | 0 | 0 | 0 | 61 | 38 | 3 | 82 | 0 | 0 | 123 | 201 |
| Hourly Total | 0 | 5 | 127 | 0 | 0 | 132 | 0 | 0 | 0 | 0 | 0 | 0 | 55 | 324 | 0 | 0 | 2 | 379 | 143 | 14 | 378 | 0 | 0 | 535 | 1046 |
| Grand Total | 1 | 48 | 572 | 0 | 0 | 621 | 0 | 0 | 0 | 0 | 0 | 0 | 234 | 1059 | 0 | 0 | 5 | 1293 | 799 | 49 | 1046 | 0 | 0 | 1894 | 3808 |
| Approach % | 0.2 | 7.7 | 92.1 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 18.1 | 81.9 | 0.0 | 0.0 | - | - | 42.2 | 2.6 | 55.2 | 0.0 | - | - | - |
| Total % | 0.0 | 1.3 | 15.0 | 0.0 | - | 16.3 | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 6.1 | 27.8 | 0.0 | 0.0 | - | 34.0 | 21.0 | 1.3 | 27.5 | 0.0 | - | 49.7 | - |
| Lights | 1 | 47 | 537 | 0 | - | 585 | 0 | 0 | 0 | 0 | - | 0 | 225 | 1040 | 0 | 0 | - | 1265 | 792 | 47 | 1014 | 0 | - | 1853 | 3703 |
| % Lights | 100.0 | 97.9 | 93.9 | - | - | 94.2 | - | - | - | - | - | - | 96.2 | 98.2 | - | - | - | 97.8 | 99.1 | 95.9 | 96.9 | - | - | 97.8 | 97.2 |
| Buses | 0 | 0 | 4 | 0 | - | 4 | 0 | 0 | 0 | 0 | - | 0 | 3 | 2 | 0 | 0 | - | 5 | 2 | 0 | 0 | 0 | - | 2 | 11 |
| % Buses | 0.0 | 0.0 | 0.7 | - | - | 0.6 | - | - | - | - | - | - | 1.3 | 0.2 | - | - | - | 0.4 | 0.3 | 0.0 | 0.0 | - | - | 0.1 | 0.3 |
| Trucks | 0 | 1 | 31 | 0 | - | 32 | 0 | 0 | 0 | 0 | - | 0 | 6 | 17 | 0 | 0 | - | 23 | 5 | 1 | 31 | 0 | - | 37 | 92 |
| % Trucks | 0.0 | 2.1 | 5.4 | - | - | 5.2 | - | - | - | - | - | - | 2.6 | 1.6 | - | - | - | 1.8 | 0.6 | 2.0 | 3.0 | - | - | 2.0 | 2.4 |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 1 | 1 | 0 | - | 2 | 2 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | - | - | 0.0 | - | - | - | - | - | - | 0.0 | 0.0 | - | - | - | 0.0 | 0.0 | 2.0 | 0.1 | - | - | 0.1 | 0.1 |
| Bicycles on Crosswalk | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 1 | - | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 20.0 | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 4 | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 80.0 | - | - | - | - | - | - | - | - |

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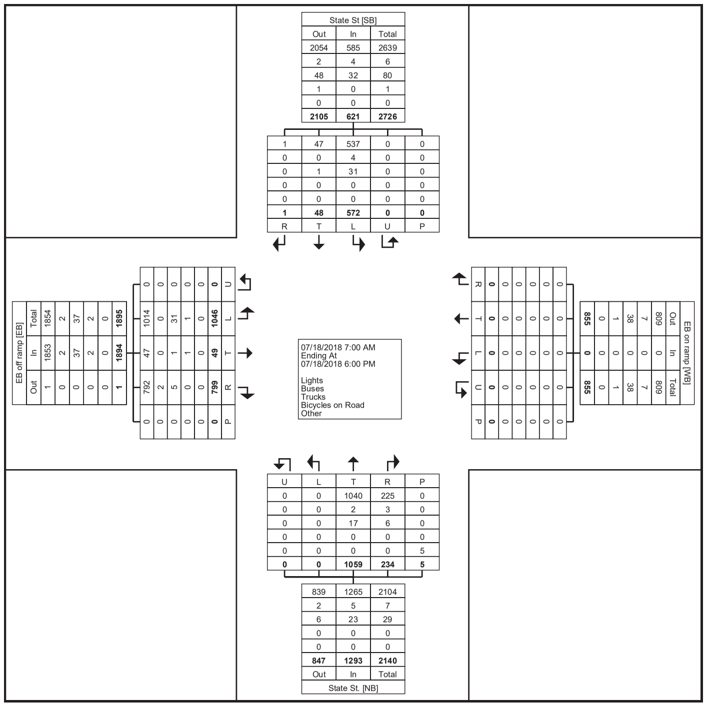


Turning Movement Data Plot

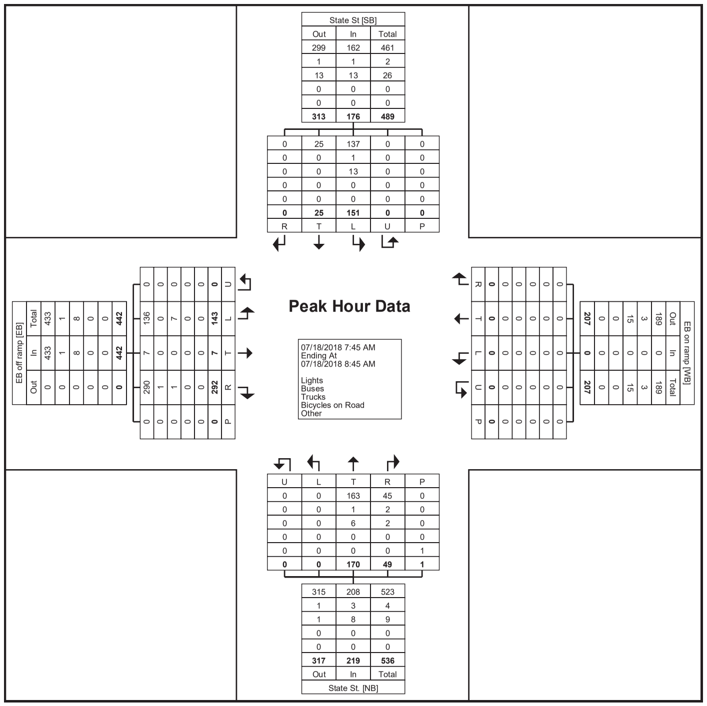
Utica, NY
State St/EB Off Ramp
Wednesday, July 18, 2018
Location: 43.105088, -75.237254

www.TSTData.com
184 Baker Rd
Coatesville, Pennsylvania, United States 19320
610-466-1469 jvetterlein@tstdata.com
Serving Transportation Professionals Since 1995

Count Name: 2. State St. and EB off-ramp
Site Code: Utica,NY
Start Date: 07/18/2018
Page No: 3

## Turning Movement Peak Hour Data (7:45 AM)

| | State St Southbound | | | | | | EB on ramp Westbound | | | | | | State St. Northbound | | | | | | EB off ramp Eastbound | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Peds | App. Total | Right | Thru | Left | U-Turn | Peds | App. Total | Right | Thru | Left | U-Turn | Peds | App. Total | Right | Thru | Left | U-Turn | Peds | App. Total | Int. Total |
| 7:45 AM | 0 | 3 | 49 | 0 | 0 | 52 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 42 | 0 | 0 | 0 | 59 | 90 | 6 | 30 | 0 | 0 | 126 | 237 |
| 8:00 AM | 0 | 2 | 32 | 0 | 0 | 34 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 52 | 0 | 0 | 0 | 66 | 79 | 0 | 38 | 0 | 0 | 117 | 217 |
| 8:15 AM | 0 | 8 | 35 | 0 | 0 | 43 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 35 | 0 | 0 | 1 | 43 | 70 | 1 | 33 | 0 | 0 | 104 | 190 |
| 8:30 AM | 0 | 12 | 35 | 0 | 0 | 47 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 41 | 0 | 0 | 0 | 51 | 53 | 0 | 42 | 0 | 0 | 95 | 193 |
| Total | 0 | 25 | 151 | 0 | 0 | 176 | 0 | 0 | 0 | 0 | 0 | 0 | 49 | 170 | 0 | 0 | 1 | 219 | 292 | 7 | 143 | 0 | 0 | 442 | 837 |
| Approach % | 0.0 | 14.2 | 85.8 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 22.4 | 77.6 | 0.0 | 0.0 | - | - | 66.1 | 1.6 | 32.4 | 0.0 | - | - | - |
| Total % | 0.0 | 3.0 | 18.0 | 0.0 | - | 21.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 5.9 | 20.3 | 0.0 | 0.0 | - | 26.2 | 34.9 | 0.8 | 17.1 | 0.0 | - | 52.8 | - |
| PHF | 0.000 | 0.521 | 0.770 | 0.000 | - | 0.846 | 0.000 | 0.000 | 0.000 | 0.000 | - | 0.000 | 0.721 | 0.817 | 0.000 | 0.000 | - | 0.830 | 0.811 | 0.292 | 0.851 | 0.000 | - | 0.877 | 0.883 |
| Lights | 0 | 25 | 137 | 0 | - | 162 | 0 | 0 | 0 | 0 | - | 0 | 45 | 163 | 0 | 0 | - | 208 | 290 | 7 | 136 | 0 | - | 433 | 803 |
| % Lights | - | 100.0 | 90.7 | - | - | 92.0 | - | - | - | - | - | - | 91.8 | 95.9 | - | - | - | 95.0 | 99.3 | 100.0 | 95.1 | - | - | 98.0 | 95.9 |
| Buses | 0 | 0 | 1 | 0 | - | 1 | 0 | 0 | 0 | 0 | - | 0 | 2 | 1 | 0 | 0 | - | 3 | 1 | 0 | 0 | 0 | - | 1 | 5 |
| % Buses | - | 0.0 | 0.7 | - | - | 0.6 | - | - | - | - | - | - | 4.1 | 0.6 | - | - | - | 1.4 | 0.3 | 0.0 | 0.0 | - | - | 0.2 | 0.6 |
| Trucks | 0 | 0 | 13 | 0 | - | 13 | 0 | 0 | 0 | 0 | - | 0 | 2 | 6 | 0 | 0 | - | 8 | 1 | 0 | 7 | 0 | - | 8 | 29 |
| % Trucks | - | 0.0 | 8.6 | - | - | 7.4 | - | - | - | - | - | - | 4.1 | 3.5 | - | - | - | 3.7 | 0.3 | 0.0 | 4.9 | - | - | 1.8 | 3.5 |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Bicycles on Road | - | 0.0 | 0.0 | - | - | 0.0 | - | - | - | - | - | - | 0.0 | 0.0 | - | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 |
| Bicycles on Crosswalk | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 1 | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | - | - |



Turning Movement Peak Hour Data Plot (7:45 AM)

TRI-STATE TRAFFIC DATA
Utica, NY
State St/EB Off Ramp
Wednesday, July 18, 2018
Location: 43.105088, -75.237254
www.TSTData.com
184 Baker Rd
Coatesville, Pennsylvania, United States 19320
610-466-1469 jvetterlein@tstdata.com
Serving Transportation Professionals Since 1995
Count Name: 2. State St. and EB off-ramp
Site Code: Utica,NY
Start Date: 07/18/2018


## Turning Movement Peak Hour Data (4:00 PM)

| | State St Southbound | | | | | | EB on ramp Westbound | | | | | | State St. Northbound | | | | | | EB off ramp Eastbound | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Peds | App. Total | Right | Thru | Left | U-Turn | Peds | App. Total | Right | Thru | Left | U-Turn | Peds | App. Total | Right | Thru | Left | U-Turn | Peds | App. Total | Int. Total |
| 4:00 PM | 0 | 1 | 40 | 0 | 0 | 41 | 0 | 0 | 0 | 0 | 0 | 0 | 21 | 125 | 0 | 0 | 0 | 146 | 36 | 1 | 95 | 0 | 0 | 132 | 319 |
| 4:15 PM | 0 | 0 | 35 | 0 | 0 | 35 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | 79 | 0 | 0 | 0 | 105 | 37 | 7 | 105 | 0 | 0 | 149 | 289 |
| 4:30 PM | 0 | 2 | 37 | 0 | 0 | 39 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 135 | 0 | 0 | 0 | 153 | 49 | 6 | 95 | 0 | 0 | 150 | 342 |
| 4:45 PM | 0 | 1 | 28 | 0 | 0 | 29 | 0 | 0 | 0 | 0 | 0 | 0 | 31 | 93 | 0 | 0 | 1 | 124 | 49 | 2 | 103 | 0 | 0 | 154 | 307 |
| Total | 0 | 4 | 140 | 0 | 0 | 144 | 0 | 0 | 0 | 0 | 0 | 0 | 96 | 432 | 0 | 0 | 1 | 528 | 171 | 16 | 398 | 0 | 0 | 585 | 1257 |
| Approach % | 0.0 | 2.8 | 97.2 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 18.2 | 81.8 | 0.0 | 0.0 | - | - | 29.2 | 2.7 | 68.0 | 0.0 | - | - | - |
| Total % | 0.0 | 0.3 | 11.1 | 0.0 | - | 11.5 | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 7.6 | 34.4 | 0.0 | 0.0 | - | 42.0 | 13.6 | 1.3 | 31.7 | 0.0 | - | 46.5 | - |
| PHF | 0.000 | 0.500 | 0.875 | 0.000 | - | 0.878 | 0.000 | 0.000 | 0.000 | 0.000 | - | 0.000 | 0.774 | 0.800 | 0.000 | 0.000 | - | 0.863 | 0.872 | 0.571 | 0.948 | 0.000 | - | 0.950 | 0.919 |
| Lights | 0 | 4 | 133 | 0 | - | 137 | 0 | 0 | 0 | 0 | - | 0 | 94 | 428 | 0 | 0 | - | 522 | 171 | 16 | 390 | 0 | - | 577 | 1236 |
| % Lights | - | 100.0 | 95.0 | - | - | 95.1 | - | - | - | - | - | - | 97.9 | 99.1 | - | - | - | 98.9 | 100.0 | 100.0 | 98.0 | - | - | 98.6 | 98.3 |
| Buses | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 1 | 0 | 0 | 0 | - | 1 | 0 | 0 | 0 | 0 | - | 0 | 1 |
| % Buses | - | 0.0 | 0.0 | - | - | 0.0 | - | - | - | - | - | - | 1.0 | 0.0 | - | - | - | 0.2 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.1 |
| Trucks | 0 | 0 | 7 | 0 | - | 7 | 0 | 0 | 0 | 0 | - | 0 | 1 | 4 | 0 | 0 | - | 5 | 0 | 0 | 8 | 0 | - | 8 | 20 |
| % Trucks | - | 0.0 | 5.0 | - | - | 4.9 | - | - | - | - | - | - | 1.0 | 0.9 | - | - | - | 0.9 | 0.0 | 0.0 | 2.0 | - | - | 1.4 | 1.6 |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Bicycles on Road | - | 0.0 | 0.0 | - | - | 0.0 | - | - | - | - | - | - | 0.0 | 0.0 | - | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 |
| Bicycles on Crosswalk | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 1 | - | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | - | - |

Utica, NY
State St/EB Off Ramp
Wednesday, July 18, 2018
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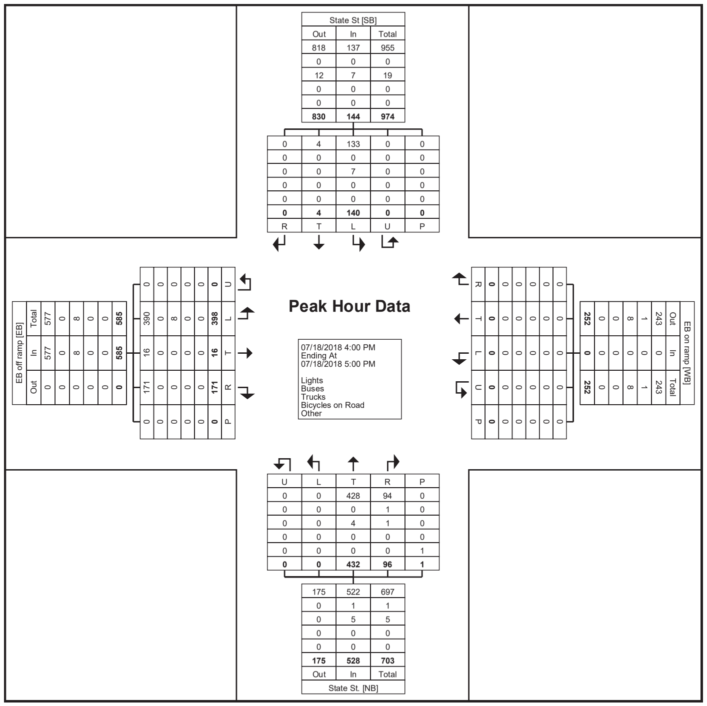
Site Code: Utica,NY
Start Date: 07/18/2018
Page No: 6



Turning Movement Peak Hour Data Plot (4:00 PM)


Utica, NY
State St/EB Off Ramp
Wednesday, July 18, 2018
Location: 43.105088, -75.237254

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Count Name: 2. State St. and EB off-ramp
Site Code: Utica,NY
Start Date: 07/18/2018

Page No: 7

Utica, NY
State St/Lafayette St
Wednesday, July 18, 2018
Location: 43.104251, -75.237623

TRI-STATE TRAFFIC DATA
www.TSTData.com
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-466-1469 jvetterlein@tstdata.com
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Count Name: 3. State St. and Lafayette St.
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 1

## Turning Movement Data

| | State St. Southbound | | | | | | | Lafayette St. Westbound | | | | | | | State St. Northbound | | | | | | | Lafayette St. Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Int. Total |
| 7:00 AM | 1 | 0 | 19 | 8 | 0 | 0 | 28 | 1 | 2 | 8 | 5 | 0 | 0 | 16 | 4 | 0 | 23 | 1 | 0 | 1 | 28 | 2 | 1 | 4 | 4 | 0 | 0 | 11 | 83 |
| 7:15 AM | 1 | 0 | 32 | 9 | 0 | 0 | 42 | 1 | 1 | 22 | 6 | 0 | 0 | 30 | 6 | 1 | 33 | 1 | 0 | 0 | 41 | 4 | 0 | 3 | 4 | 0 | 0 | 11 | 124 |
| 7:30 AM | 3 | 1 | 41 | 16 | 0 | 1 | 61 | 1 | 2 | 9 | 10 | 0 | 0 | 22 | 7 | 0 | 32 | 2 | 0 | 0 | 41 | 2 | 2 | 9 | 6 | 0 | 0 | 19 | 143 |
| 7:45 AM | 3 | 0 | 70 | 23 | 0 | 0 | 96 | 7 | 2 | 19 | 13 | 0 | 0 | 41 | 12 | 0 | 43 | 0 | 0 | 2 | 55 | 4 | 2 | 9 | 5 | 0 | 0 | 20 | 212 |
| Hourly Total | 8 | 1 | 162 | 56 | 0 | 1 | 227 | 10 | 7 | 58 | 34 | 0 | 0 | 109 | 29 | 1 | 131 | 4 | 0 | 3 | 165 | 12 | 5 | 25 | 19 | 0 | 0 | 61 | 562 |
| 8:00 AM | 1 | 1 | 67 | 18 | 0 | 0 | 87 | 7 | 1 | 16 | 10 | 0 | 0 | 34 | 5 | 1 | 51 | 1 | 0 | 1 | 58 | 5 | 2 | 11 | 10 | 0 | 0 | 28 | 207 |
| 8:15 AM | 9 | 1 | 54 | 26 | 0 | 0 | 90 | 2 | 5 | 10 | 7 | 0 | 0 | 24 | 10 | 1 | 34 | 0 | 0 | 0 | 45 | 1 | 4 | 12 | 3 | 0 | 0 | 20 | 179 |
| 8:30 AM | 1 | 0 | 56 | 19 | 0 | 0 | 76 | 1 | 2 | 14 | 11 | 0 | 3 | 28 | 9 | 0 | 42 | 4 | 0 | 0 | 55 | 2 | 0 | 17 | 7 | 0 | 0 | 26 | 185 |
| 8:45 AM | 8 | 1 | 43 | 17 | 0 | 5 | 69 | 5 | 3 | 14 | 14 | 0 | 1 | 36 | 6 | 5 | 49 | 3 | 0 | 0 | 63 | 5 | 6 | 10 | 4 | 0 | 0 | 25 | 193 |
| Hourly Total | 19 | 3 | 220 | 80 | 0 | 5 | 322 | 15 | 11 | 54 | 42 | 0 | 4 | 122 | 30 | 7 | 176 | 8 | 0 | 1 | 221 | 13 | 12 | 50 | 24 | 0 | 0 | 99 | 764 |
| 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 4:00 PM | 2 | 0 | 32 | 5 | 0 | 0 | 39 | 13 | 4 | 28 | 17 | 0 | 0 | 62 | 5 | 0 | 110 | 5 | 0 | 3 | 120 | 1 | 0 | 12 | 18 | 0 | 0 | 31 | 252 |
| 4:15 PM | 2 | 1 | 29 | 5 | 0 | 0 | 37 | 17 | 2 | 30 | 15 | 0 | 1 | 64 | 5 | 1 | 83 | 3 | 0 | 0 | 92 | 1 | 2 | 15 | 5 | 0 | 0 | 23 | 216 |
| 4:30 PM | 1 | 1 | 42 | 6 | 0 | 0 | 50 | 17 | 5 | 36 | 19 | 0 | 0 | 77 | 5 | 1 | 116 | 4 | 0 | 0 | 126 | 1 | 0 | 12 | 14 | 0 | 0 | 27 | 280 |
| 4:45 PM | 2 | 1 | 40 | 7 | 0 | 1 | 50 | 10 | 3 | 32 | 9 | 0 | 0 | 54 | 12 | 1 | 92 | 3 | 0 | 0 | 108 | 2 | 1 | 14 | 14 | 0 | 0 | 31 | 243 |
| Hourly Total | 7 | 3 | 143 | 23 | 0 | 1 | 176 | 57 | 14 | 126 | 60 | 0 | 1 | 257 | 27 | 3 | 401 | 15 | 0 | 3 | 446 | 5 | 3 | 53 | 51 | 0 | 0 | 112 | 991 |
| 5:00 PM | 6 | 1 | 24 | 1 | 0 | 0 | 32 | 16 | 0 | 18 | 9 | 0 | 0 | 43 | 7 | 0 | 107 | 4 | 0 | 1 | 118 | 3 | 1 | 7 | 17 | 0 | 0 | 28 | 221 |
| 5:15 PM | 4 | 0 | 28 | 6 | 0 | 0 | 38 | 6 | 7 | 17 | 8 | 0 | 0 | 38 | 4 | 0 | 77 | 0 | 0 | 0 | 81 | 5 | 1 | 13 | 13 | 0 | 0 | 32 | 189 |
| 5:30 PM | 2 | 0 | 35 | 5 | 0 | 0 | 42 | 5 | 4 | 15 | 7 | 0 | 0 | 31 | 4 | 2 | 53 | 3 | 0 | 2 | 62 | 2 | 2 | 9 | 10 | 0 | 0 | 23 | 158 |
| 5:45 PM | 1 | 1 | 36 | 4 | 0 | 0 | 42 | 3 | 1 | 14 | 7 | 0 | 0 | 25 | 3 | 0 | 49 | 1 | 0 | 2 | 53 | 4 | 1 | 8 | 6 | 0 | 0 | 19 | 139 |
| Hourly Total | 13 | 2 | 123 | 16 | 0 | 0 | 154 | 30 | 12 | 64 | 31 | 0 | 0 | 137 | 18 | 2 | 286 | 8 | 0 | 5 | 314 | 14 | 5 | 37 | 46 | 0 | 0 | 102 | 707 |
| 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Grand Total | 47 | 9 | 648 | 175 | 0 | 7 | 879 | 112 | 44 | 302 | 167 | 0 | 5 | 625 | 104 | 13 | 995 | 35 | 0 | 12 | 1147 | 44 | 25 | 165 | 140 | 0 | 0 | 374 | 3025 |
| Approach % | 5.3 | 1.0 | 73.7 | 19.9 | 0.0 | - | - | 17.9 | 7.0 | 48.3 | 26.7 | 0.0 | - | - | 9.1 | 1.1 | 86.7 | 3.1 | 0.0 | - | - | 11.8 | 6.7 | 44.1 | 37.4 | 0.0 | - | - | - |
| Total % | 1.6 | 0.3 | 21.4 | 5.8 | 0.0 | - | 29.1 | 3.7 | 1.5 | 10.0 | 5.5 | 0.0 | - | 20.7 | 3.4 | 0.4 | 32.9 | 1.2 | 0.0 | - | 37.9 | 1.5 | 0.8 | 5.5 | 4.6 | 0.0 | - | 12.4 | - |
| Lights | 46 | 9 | 642 | 174 | 0 | - | 871 | 110 | 44 | 288 | 160 | 0 | - | 602 | 104 | 13 | 970 | 32 | 0 | - | 1119 | 40 | 23 | 157 | 138 | 0 | - | 358 | 2950 |
| % Lights | 97.9 | 100.0 | 99.1 | 99.4 | - | - | 99.1 | 98.2 | 100.0 | 95.4 | 95.8 | - | - | 96.3 | 100.0 | 100.0 | 97.5 | 91.4 | - | - | 97.6 | 90.9 | 92.0 | 95.2 | 98.6 | - | - | 95.7 | 97.5 |
| Buses | 0 | 0 | 2 | 0 | 0 | - | 2 | 0 | 0 | 6 | 2 | 0 | - | 8 | 0 | 0 | 4 | 0 | 0 | - | 4 | 0 | 0 | 3 | 1 | 0 | - | 4 | 18 |
| % Buses | 0.0 | 0.0 | 0.3 | 0.0 | - | - | 0.2 | 0.0 | 0.0 | 2.0 | 1.2 | - | - | 1.3 | 0.0 | 0.0 | 0.4 | 0.0 | - | - | 0.3 | 0.0 | 0.0 | 1.8 | 0.7 | - | - | 1.1 | 0.6 |
| Trucks | 1 | 0 | 4 | 1 | 0 | - | 6 | 2 | 0 | 6 | 4 | 0 | - | 12 | 0 | 0 | 21 | 2 | 0 | - | 23 | 4 | 1 | 1 | 0 | 0 | - | 6 | 47 |
| % Trucks | 2.1 | 0.0 | 0.6 | 0.6 | - | - | 0.7 | 1.8 | 0.0 | 2.0 | 2.4 | - | - | 1.9 | 0.0 | 0.0 | 2.1 | 5.7 | - | - | 2.0 | 9.1 | 4.0 | 0.6 | 0.0 | - | - | 1.6 | 1.6 |
| Bicycles on Road | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 2 | 1 | 0 | - | 3 | 0 | 0 | 0 | 1 | 0 | - | 1 | 0 | 1 | 4 | 1 | 0 | - | 6 | 10 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.7 | 0.6 | - | - | 0.5 | 0.0 | 0.0 | 0.0 | 2.9 | - | - | 0.1 | 0.0 | 4.0 | 2.4 | 0.7 | - | - | 1.6 | 0.3 |
| Bicycles on Crosswalk | - | - | - | - | - | 3 | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | 42.9 | - | - | - | - | - | - | 20.0 | - | - | - | - | - | - | 8.3 | - | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | - | - | 4 | - | - | - | - | - | - | 4 | - | - | - | - | - | - | 11 | - | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | 57.1 | - | - | - | - | - | - | 80.0 | - | - | - | - | - | - | 91.7 | - | - | - | - | - | - | - | - | - |

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State St/Lafayette St
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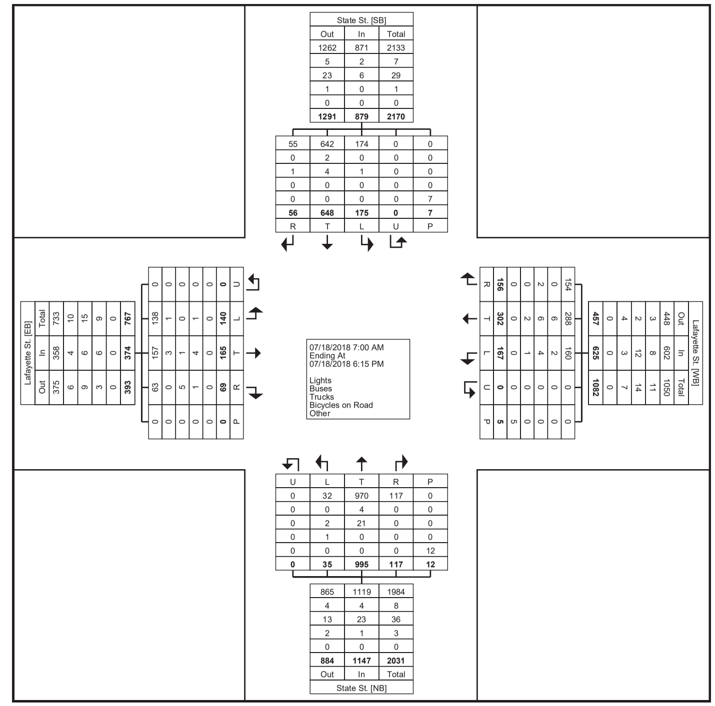


Turning Movement Data Plot

Utica, NY
State St/Lafayette St
Wednesday, July 18, 2018
Location: 43.104251, -75.237623

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## Turning Movement Peak Hour Data (7:45 AM)

| Start Time | State St. Southbound | | | | | | | Lafayette St. Westbound | | | | | | | State St. Northbound | | | | | | | Lafayette St. Eastbound | | | | | | | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | |
| 7:45 AM | 3 | 0 | 70 | 23 | 0 | 0 | 96 | 7 | 2 | 19 | 13 | 0 | 0 | 41 | 12 | 0 | 43 | 0 | 0 | 2 | 55 | 4 | 2 | 9 | 5 | 0 | 0 | 20 | 212 |
| 8:00 AM | 1 | 1 | 67 | 18 | 0 | 0 | 87 | 7 | 1 | 16 | 10 | 0 | 0 | 34 | 5 | 1 | 51 | 1 | 0 | 1 | 58 | 5 | 2 | 11 | 10 | 0 | 0 | 28 | 207 |
| 8:15 AM | 9 | 1 | 54 | 26 | 0 | 0 | 90 | 2 | 5 | 10 | 7 | 0 | 0 | 24 | 10 | 1 | 34 | 0 | 0 | 0 | 45 | 1 | 4 | 12 | 3 | 0 | 0 | 20 | 179 |
| 8:30 AM | 1 | 0 | 56 | 19 | 0 | 0 | 76 | 1 | 2 | 14 | 11 | 0 | 3 | 28 | 9 | 0 | 42 | 4 | 0 | 0 | 55 | 2 | 0 | 17 | 7 | 0 | 0 | 26 | 185 |
| Total | 14 | 2 | 247 | 86 | 0 | 0 | 349 | 17 | 10 | 59 | 41 | 0 | 3 | 127 | 36 | 2 | 170 | 5 | 0 | 3 | 213 | 12 | 8 | 49 | 25 | 0 | 0 | 94 | 783 |
| Approach % | 4.0 | 0.6 | 70.8 | 24.6 | 0.0 | - | - | 13.4 | 7.9 | 46.5 | 32.3 | 0.0 | - | - | 16.9 | 0.9 | 79.8 | 2.3 | 0.0 | - | - | 12.8 | 8.5 | 52.1 | 26.6 | 0.0 | - | - | - |
| Total % | 1.8 | 0.3 | 31.5 | 11.0 | 0.0 | - | 44.6 | 2.2 | 1.3 | 7.5 | 5.2 | 0.0 | - | 16.2 | 4.6 | 0.3 | 21.7 | 0.6 | 0.0 | - | 27.2 | 1.5 | 1.0 | 6.3 | 3.2 | 0.0 | - | 12.0 | - |
| PHF | 0.389 | 0.500 | 0.882 | 0.827 | 0.000 | - | 0.909 | 0.607 | 0.500 | 0.776 | 0.788 | 0.000 | - | 0.774 | 0.750 | 0.500 | 0.833 | 0.313 | 0.000 | - | 0.918 | 0.600 | 0.500 | 0.721 | 0.625 | 0.000 | - | 0.839 | 0.923 |
| Lights | 13 | 2 | 246 | 86 | 0 | - | 347 | 16 | 10 | 55 | 39 | 0 | - | 120 | 36 | 2 | 160 | 4 | 0 | - | 202 | 10 | 6 | 47 | 25 | 0 | - | 88 | 757 |
| % Lights | 92.9 | 100.0 | 99.6 | 100.0 | - | - | 99.4 | 94.1 | 100.0 | 93.2 | 95.1 | - | - | 94.5 | 100.0 | 100.0 | 94.1 | 80.0 | - | - | 94.8 | 83.3 | 75.0 | 95.9 | 100.0 | - | - | 93.6 | 96.7 |
| Buses | 0 | 0 | 1 | 0 | 0 | - | 1 | 0 | 0 | 2 | 1 | 0 | - | 3 | 0 | 0 | 3 | 0 | 0 | - | 3 | 0 | 0 | 1 | 0 | 0 | - | 1 | 8 |
| % Buses | 0.0 | 0.0 | 0.4 | 0.0 | - | - | 0.3 | 0.0 | 0.0 | 3.4 | 2.4 | - | - | 2.4 | 0.0 | 0.0 | 1.8 | 0.0 | - | - | 1.4 | 0.0 | 0.0 | 2.0 | 0.0 | - | - | 1.1 | 1.0 |
| Trucks | 1 | 0 | 0 | 0 | 0 | - | 1 | 1 | 0 | 2 | 1 | 0 | - | 4 | 0 | 0 | 7 | 1 | 0 | - | 8 | 2 | 1 | 0 | 0 | 0 | - | 3 | 16 |
| % Trucks | 7.1 | 0.0 | 0.0 | 0.0 | - | - | 0.3 | 5.9 | 0.0 | 3.4 | 2.4 | - | - | 3.1 | 0.0 | 0.0 | 4.1 | 20.0 | - | - | 3.8 | 16.7 | 12.5 | 0.0 | 0.0 | - | - | 3.2 | 2.0 |
| Bicycles on Road | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 1 | 1 | 0 | 0 | - | 2 | 2 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 12.5 | 2.0 | 0.0 | - | - | 2.1 | 0.3 |
| Bicycles on Crosswalk | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | - | - | 0 | - | - | - | - | - | - | 3 | - | - | - | - | - | - | 3 | - | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | - | - | - |

Utica, NY
State St/Lafayette St
Wednesday, July 18, 2018
Location: 43.104251, -75.237623

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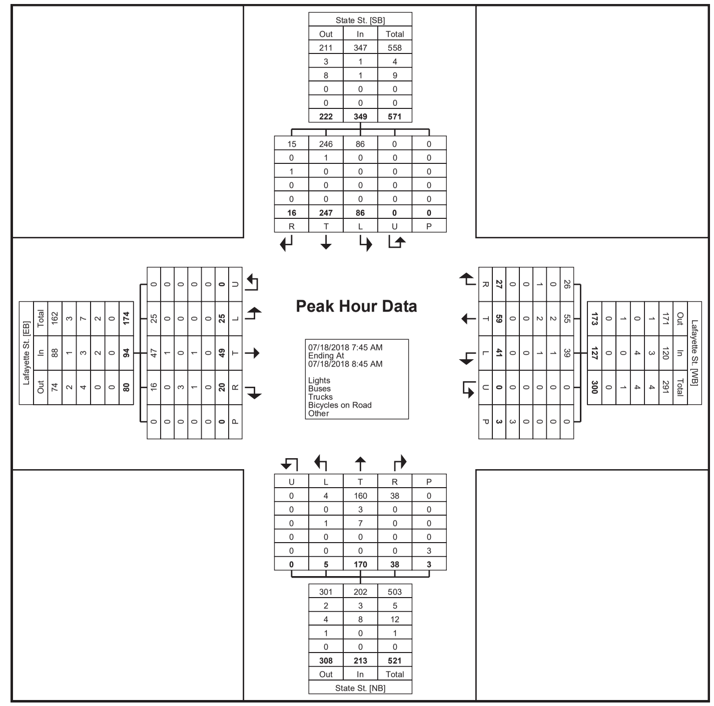
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 4




Turning Movement Peak Hour Data Plot (7:45 AM)

Utica, NY
State St/Lafayette St
Wednesday, July 18, 2018
Location: 43.104251, -75.237623

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Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 5

## Turning Movement Peak Hour Data (4:00 PM)

| | State St. Southbound | | | | | | | Lafayette St. Westbound | | | | | | | State St. Northbound | | | | | | | Lafayette St. Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Int. Total |
| 4:00 PM | 2 | 0 | 32 | 5 | 0 | 0 | 39 | 13 | 4 | 28 | 17 | 0 | 0 | 62 | 5 | 0 | 110 | 5 | 0 | 3 | 120 | 1 | 0 | 12 | 18 | 0 | 0 | 31 | 252 |
| 4:15 PM | 2 | 1 | 29 | 5 | 0 | 0 | 37 | 17 | 2 | 30 | 15 | 0 | 1 | 64 | 5 | 1 | 83 | 3 | 0 | 0 | 92 | 1 | 2 | 15 | 5 | 0 | 0 | 23 | 216 |
| 4:30 PM | 1 | 1 | 42 | 6 | 0 | 0 | 50 | 17 | 5 | 36 | 19 | 0 | 0 | 77 | 5 | 1 | 116 | 4 | 0 | 0 | 126 | 1 | 0 | 12 | 14 | 0 | 0 | 27 | 280 |
| 4:45 PM | 2 | 1 | 40 | 7 | 0 | 1 | 50 | 10 | 3 | 32 | 9 | 0 | 0 | 54 | 12 | 1 | 92 | 3 | 0 | 0 | 108 | 2 | 1 | 14 | 14 | 0 | 0 | 31 | 243 |
| Total | 7 | 3 | 143 | 23 | 0 | 1 | 176 | 57 | 14 | 126 | 60 | 0 | 1 | 257 | 27 | 3 | 401 | 15 | 0 | 3 | 446 | 5 | 3 | 53 | 51 | 0 | 0 | 112 | 991 |
| Approach % | 4.0 | 1.7 | 81.3 | 13.1 | 0.0 | - | - | 22.2 | 5.4 | 49.0 | 23.3 | 0.0 | - | - | 6.1 | 0.7 | 89.9 | 3.4 | 0.0 | - | - | 4.5 | 2.7 | 47.3 | 45.5 | 0.0 | - | - | - |
| Total % | 0.7 | 0.3 | 14.4 | 2.3 | 0.0 | - | 17.8 | 5.8 | 1.4 | 12.7 | 6.1 | 0.0 | - | 25.9 | 2.7 | 0.3 | 40.5 | 1.5 | 0.0 | - | 45.0 | 0.5 | 0.3 | 5.3 | 5.1 | 0.0 | - | 11.3 | - |
| PHF | 0.875 | 0.750 | 0.851 | 0.821 | 0.000 | - | 0.880 | 0.838 | 0.700 | 0.875 | 0.789 | 0.000 | - | 0.834 | 0.563 | 0.750 | 0.864 | 0.750 | 0.000 | - | 0.885 | 0.625 | 0.375 | 0.883 | 0.708 | 0.000 | - | 0.903 | 0.885 |
| Lights | 7 | 3 | 143 | 23 | 0 | - | 176 | 57 | 14 | 121 | 59 | 0 | - | 251 | 27 | 3 | 396 | 15 | 0 | - | 441 | 5 | 3 | 49 | 51 | 0 | - | 108 | 976 |
| % Lights | 100.0 | 100.0 | 100.0 | 100.0 | - | - | 100.0 | 100.0 | 100.0 | 96.0 | 98.3 | - | - | 97.7 | 100.0 | 100.0 | 98.8 | 100.0 | - | - | 98.9 | 100.0 | 100.0 | 92.5 | 100.0 | - | - | 96.4 | 98.5 |
| Buses | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 2 | 0 | 0 | - | 2 | 0 | 0 | 1 | 0 | 0 | - | 1 | 0 | 0 | 1 | 0 | 0 | - | 1 | 4 |
| % Buses | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 1.6 | 0.0 | - | - | 0.8 | 0.0 | 0.0 | 0.2 | 0.0 | - | - | 0.2 | 0.0 | 0.0 | 1.9 | 0.0 | - | - | 0.9 | 0.4 |
| Trucks | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 3 | 1 | 0 | - | 4 | 0 | 0 | 4 | 0 | 0 | - | 4 | 0 | 0 | 1 | 0 | 0 | - | 1 | 9 |
| % Trucks | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 2.4 | 1.7 | - | - | 1.6 | 0.0 | 0.0 | 1.0 | 0.0 | - | - | 0.9 | 0.0 | 0.0 | 1.9 | 0.0 | - | - | 0.9 | 0.9 |
| Bicycles on Road | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 2 | 0 | 0 | - | 2 | 2 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 3.8 | 0.0 | - | - | 1.8 | 0.2 |
| Bicycles on Crosswalk | - | - | - | - | - | 1 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | - | - | 0 | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 3 | - | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | - | - | - |

Utica, NY
State St/Lafayette St
Wednesday, July 18, 2018
Location: 43.104251, -75.237623

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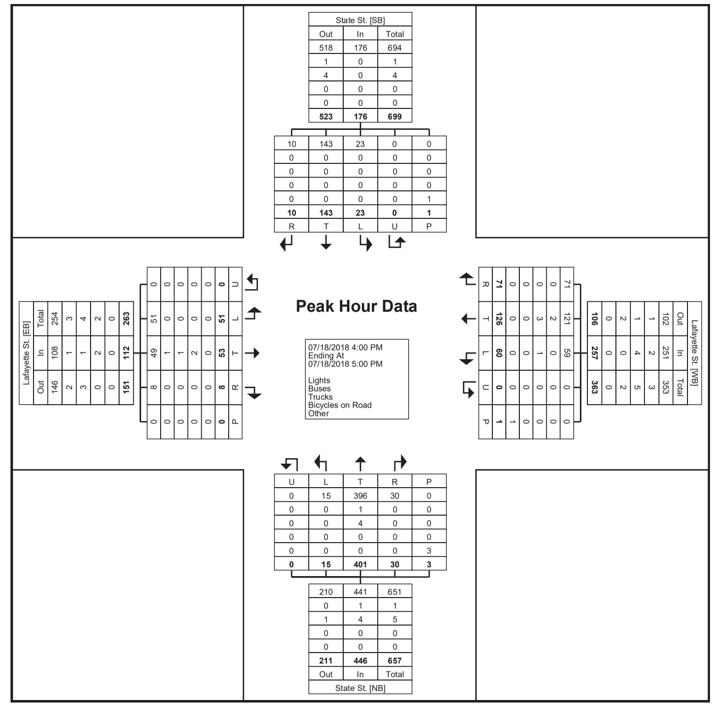
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 6




Turning Movement Peak Hour Data Plot (4:00 PM)

Utica, NY
State St/Lafayette St
Wednesday, July 18, 2018
Location: 43.104251, -
75.237623

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Lafayette St.
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 7

Utica, NY
State St/Columbia St
Wednesday, July 18, 2018
Location: 43.103556, -
75.238103

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Count Name: 4. State St and
Columbia St
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 1

## Turning Movement Data

| Start Time | Columbia St Eastbound | | | | | | | Columbia St Westbound | | | | | | | State St Northbound | | | | | | | State St Southbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Right on Red | U-Turn | Peds | App. Total | Left | Thru | Right | Right on Red | U-Turn | Peds | App. Total | Left | Thru | Right | Right on Red | U-Turn | Peds | App. Total | Left | Thru | Right | Right on Red | U-Turn | Peds | App. Total | Int. Total |
| 7:00 AM | 1 | 6 | 2 | 0 | 0 | 1 | 9 | 0 | 6 | 1 | 3 | 0 | 0 | 10 | 4 | 24 | 4 | 0 | 0 | 0 | 32 | 2 | 25 | 1 | 0 | 0 | 2 | 28 | 79 |
| 7:15 AM | 1 | 9 | 3 | 0 | 0 | 1 | 13 | 1 | 5 | 2 | 2 | 0 | 2 | 10 | 3 | 35 | 6 | 2 | 0 | 0 | 46 | 7 | 36 | 1 | 1 | 0 | 0 | 45 | 114 |
| 7:30 AM | 1 | 11 | 3 | 1 | 0 | 1 | 16 | 0 | 7 | 2 | 3 | 0 | 0 | 12 | 2 | 32 | 5 | 3 | 0 | 0 | 42 | 8 | 34 | 3 | 1 | 0 | 3 | 46 | 116 |
| 7:45 AM | 0 | 13 | 3 | 3 | 0 | 0 | 19 | 7 | 8 | 1 | 3 | 0 | 1 | 19 | 9 | 51 | 5 | 4 | 0 | 1 | 69 | 20 | 59 | 12 | 2 | 0 | 2 | 93 | 200 |
| Hourly Total | 3 | 39 | 11 | 4 | 0 | 3 | 57 | 8 | 26 | 6 | 11 | 0 | 3 | 51 | 18 | 142 | 20 | 9 | 0 | 1 | 189 | 37 | 154 | 17 | 4 | 0 | 7 | 212 | 509 |
| 8:00 AM | 6 | 18 | 8 | 2 | 0 | 1 | 34 | 0 | 10 | 2 | 3 | 0 | 0 | 15 | 7 | 46 | 11 | 1 | 0 | 1 | 65 | 25 | 38 | 5 | 3 | 0 | 1 | 71 | 185 |
| 8:15 AM | 3 | 20 | 7 | 0 | 0 | 1 | 30 | 3 | 6 | 0 | 0 | 0 | 0 | 9 | 3 | 43 | 23 | 3 | 0 | 1 | 72 | 23 | 43 | 4 | 1 | 0 | 5 | 71 | 182 |
| 8:30 AM | 4 | 12 | 1 | 1 | 0 | 1 | 18 | 2 | 7 | 1 | 0 | 0 | 3 | 10 | 4 | 46 | 8 | 2 | 0 | 3 | 60 | 14 | 45 | 6 | 0 | 0 | 8 | 65 | 153 |
| 8:45 AM | 4 | 14 | 2 | 1 | 0 | 1 | 21 | 3 | 13 | 4 | 0 | 0 | 0 | 20 | 9 | 53 | 5 | 0 | 0 | 3 | 67 | 7 | 52 | 6 | 1 | 0 | 3 | 66 | 174 |
| Hourly Total | 17 | 64 | 18 | 4 | 0 | 4 | 103 | 8 | 36 | 7 | 3 | 0 | 3 | 54 | 23 | 188 | 47 | 6 | 0 | 8 | 264 | 69 | 178 | 21 | 5 | 0 | 17 | 273 | 694 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 4:00 PM | 22 | 24 | 16 | 1 | 0 | 0 | 63 | 6 | 36 | 13 | 4 | 0 | 1 | 59 | 14 | 84 | 6 | 0 | 0 | 1 | 104 | 4 | 50 | 3 | 0 | 0 | 5 | 57 | 283 |
| 4:15 PM | 5 | 20 | 5 | 0 | 0 | 0 | 30 | 9 | 20 | 7 | 6 | 0 | 1 | 42 | 8 | 75 | 16 | 0 | 0 | 3 | 99 | 3 | 37 | 1 | 0 | 0 | 3 | 41 | 212 |
| 4:30 PM | 13 | 35 | 7 | 2 | 0 | 1 | 57 | 10 | 32 | 26 | 11 | 0 | 0 | 79 | 16 | 77 | 10 | 1 | 0 | 4 | 104 | 2 | 55 | 5 | 0 | 0 | 2 | 62 | 302 |
| 4:45 PM | 12 | 20 | 2 | 4 | 0 | 0 | 38 | 4 | 20 | 11 | 5 | 0 | 1 | 40 | 6 | 80 | 7 | 0 | 0 | 0 | 93 | 6 | 42 | 0 | 0 | 0 | 5 | 48 | 219 |
| Hourly Total | 52 | 99 | 30 | 7 | 0 | 1 | 188 | 29 | 108 | 57 | 26 | 0 | 3 | 220 | 44 | 316 | 39 | 1 | 0 | 8 | 400 | 15 | 184 | 9 | 0 | 0 | 15 | 208 | 1016 |
| 5:00 PM | 7 | 19 | 4 | 3 | 0 | 0 | 33 | 6 | 23 | 12 | 4 | 0 | 1 | 45 | 12 | 93 | 8 | 1 | 0 | 0 | 114 | 5 | 32 | 3 | 0 | 0 | 6 | 40 | 232 |
| 5:15 PM | 6 | 12 | 7 | 2 | 0 | 0 | 27 | 2 | 19 | 8 | 0 | 0 | 3 | 29 | 14 | 73 | 9 | 0 | 0 | 0 | 96 | 5 | 33 | 4 | 0 | 0 | 1 | 42 | 194 |
| 5:30 PM | 2 | 14 | 9 | 1 | 0 | 0 | 26 | 7 | 14 | 1 | 5 | 0 | 0 | 27 | 5 | 52 | 7 | 1 | 0 | 0 | 65 | 3 | 40 | 3 | 0 | 0 | 2 | 46 | 164 |
| 5:45 PM | 8 | 10 | 2 | 4 | 0 | 1 | 24 | 4 | 16 | 6 | 2 | 0 | 2 | 28 | 3 | 39 | 8 | 2 | 0 | 3 | 52 | 3 | 40 | 3 | 0 | 0 | 1 | 46 | 150 |
| Hourly Total | 23 | 55 | 22 | 10 | 0 | 1 | 110 | 19 | 72 | 27 | 11 | 0 | 6 | 129 | 34 | 257 | 32 | 4 | 0 | 3 | 327 | 16 | 145 | 13 | 0 | 0 | 10 | 174 | 740 |
| Grand Total | 95 | 257 | 81 | 25 | 0 | 9 | 458 | 64 | 242 | 97 | 51 | 0 | 15 | 454 | 119 | 903 | 138 | 20 | 0 | 20 | 1180 | 137 | 661 | 60 | 9 | 0 | 49 | 867 | 2959 |
| Approach % | 20.7 | 56.1 | 17.7 | 5.5 | 0.0 | - | - | 14.1 | 53.3 | 21.4 | 11.2 | 0.0 | - | - | 10.1 | 76.5 | 11.7 | 1.7 | 0.0 | - | - | 15.8 | 76.2 | 6.9 | 1.0 | 0.0 | - | - | - |
| Total % | 3.2 | 8.7 | 2.7 | 0.8 | 0.0 | - | 15.5 | 2.2 | 8.2 | 3.3 | 1.7 | 0.0 | - | 15.3 | 4.0 | 30.5 | 4.7 | 0.7 | 0.0 | - | 39.9 | 4.6 | 22.3 | 2.0 | 0.3 | 0.0 | - | 29.3 | - |
| Lights | 89 | 237 | 78 | 24 | 0 | - | 428 | 63 | 221 | 94 | 51 | 0 | - | 429 | 115 | 880 | 136 | 20 | 0 | - | 1151 | 135 | 644 | 60 | 9 | 0 | - | 848 | 2856 |
| % Lights | 93.7 | 92.2 | 96.3 | 96.0 | - | - | 93.4 | 98.4 | 91.3 | 96.9 | 100.0 | - | - | 94.5 | 96.6 | 97.5 | 98.6 | 100.0 | - | - | 97.5 | 98.5 | 97.4 | 100.0 | 100.0 | - | - | 97.8 | 96.5 |
| Buses | 0 | 15 | 0 | 0 | 0 | - | 15 | 1 | 13 | 0 | 0 | 0 | - | 14 | 1 | 6 | 0 | 0 | 0 | - | 7 | 1 | 4 | 0 | 0 | 0 | - | 5 | 41 |
| % Buses | 0.0 | 5.8 | 0.0 | 0.0 | - | - | 3.3 | 1.6 | 5.4 | 0.0 | 0.0 | - | - | 3.1 | 0.8 | 0.7 | 0.0 | 0.0 | - | - | 0.6 | 0.7 | 0.6 | 0.0 | 0.0 | - | - | 0.6 | 1.4 |
| Trucks | 5 | 4 | 3 | 0 | 0 | - | 12 | 0 | 5 | 3 | 0 | 0 | - | 8 | 3 | 17 | 2 | 0 | 0 | - | 22 | 1 | 13 | 0 | 0 | 0 | - | 14 | 56 |
| % Trucks | 5.3 | 1.6 | 3.7 | 0.0 | - | - | 2.6 | 0.0 | 2.1 | 3.1 | 0.0 | - | - | 1.8 | 2.5 | 1.9 | 1.4 | 0.0 | - | - | 1.9 | 0.7 | 2.0 | 0.0 | 0.0 | - | - | 1.6 | 1.9 |
| Bicycles on Road | 1 | 1 | 0 | 1 | 0 | - | 3 | 0 | 3 | 0 | 0 | 0 | - | 3 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 6 |
| % Bicycles on Road | 1.1 | 0.4 | 0.0 | 4.0 | - | - | 0.7 | 0.0 | 1.2 | 0.0 | 0.0 | - | - | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.2 |
| Bicycles on Crosswalk | - | - | - | - | - | 0 | - | - | - | - | - | - | 2 | - | - | - | - | - | - | 5 | - | - | - | - | - | - | 7 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 13.3 | - | - | - | - | - | - | 25.0 | - | - | - | - | - | - | 14.3 | - | - |
| Pedestrians | - | - | - | - | - | 9 | - | - | - | - | - | - | 13 | - | - | - | - | - | - | 15 | - | - | - | - | - | - | 42 | - | - |
| % Pedestrians | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 86.7 | - | - | - | - | - | - | 75.0 | - | - | - | - | - | - | 85.7 | - | - |

Utica, NY
State St/Columbia St
Wednesday, July 18, 2018
Location: 43.103556, -75.238103

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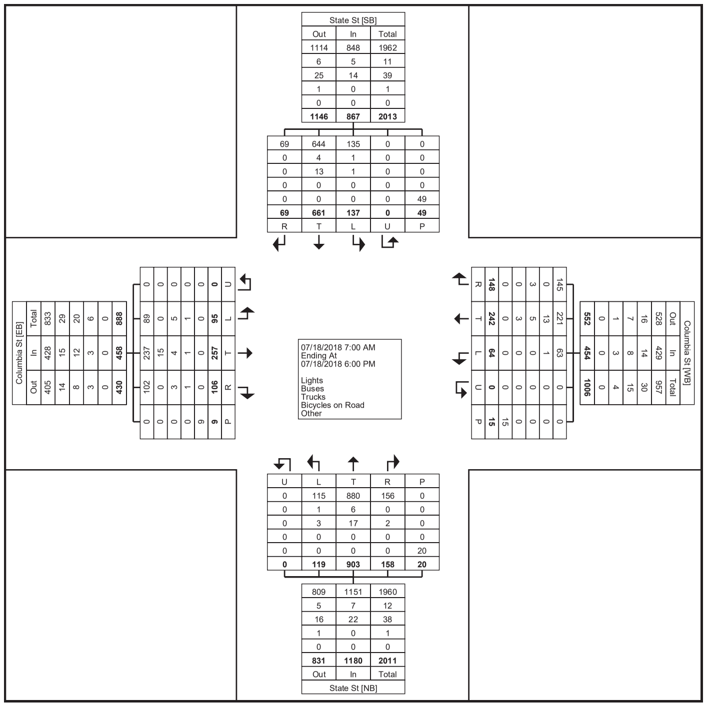
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 2




Turning Movement Data Plot

Utica, NY
State St/Columbia St
Wednesday, July 18, 2018
Location: 43.103556, -75.238103

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Count Name: 4. State St and Columbia St
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 3

## Turning Movement Peak Hour Data (7:45 AM)

| Start Time | Columbia St Eastbound | | | | | | | Columbia St Westbound | | | | | | | State St Northbound | | | | | | | State St Southbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Right on Red | U-Turn | Peds | App. Total | Left | Thru | Right | Right on Red | U-Turn | Peds | App. Total | Left | Thru | Right | Right on Red | U-Turn | Peds | App. Total | Left | Thru | Right | Right on Red | U-Turn | Peds | App. Total | Int. Total |
| 7:45 AM | 0 | 13 | 3 | 3 | 0 | 0 | 19 | 7 | 8 | 1 | 3 | 0 | 1 | 19 | 9 | 51 | 5 | 4 | 0 | 1 | 69 | 20 | 59 | 12 | 2 | 0 | 2 | 93 | 200 |
| 8:00 AM | 6 | 18 | 8 | 2 | 0 | 1 | 34 | 0 | 10 | 2 | 3 | 0 | 0 | 15 | 7 | 46 | 11 | 1 | 0 | 1 | 65 | 25 | 38 | 5 | 3 | 0 | 1 | 71 | 185 |
| 8:15 AM | 3 | 20 | 7 | 0 | 0 | 1 | 30 | 3 | 6 | 0 | 0 | 0 | 0 | 9 | 3 | 43 | 23 | 3 | 0 | 1 | 72 | 23 | 43 | 4 | 1 | 0 | 5 | 71 | 182 |
| 8:30 AM | 4 | 12 | 1 | 1 | 0 | 1 | 18 | 2 | 7 | 1 | 0 | 0 | 3 | 10 | 4 | 46 | 8 | 2 | 0 | 3 | 60 | 14 | 45 | 6 | 0 | 0 | 8 | 65 | 153 |
| Total | 13 | 63 | 19 | 6 | 0 | 3 | 101 | 12 | 31 | 4 | 6 | 0 | 4 | 53 | 23 | 186 | 47 | 10 | 0 | 6 | 266 | 82 | 185 | 27 | 6 | 0 | 16 | 300 | 720 |
| Approach % | 12.9 | 62.4 | 18.8 | 5.9 | 0.0 | - | - | 22.6 | 58.5 | 7.5 | 11.3 | 0.0 | - | - | 8.6 | 69.9 | 17.7 | 3.8 | 0.0 | - | - | 27.3 | 61.7 | 9.0 | 2.0 | 0.0 | - | - | - |
| Total % | 1.8 | 8.8 | 2.6 | 0.8 | 0.0 | - | 14.0 | 1.7 | 4.3 | 0.6 | 0.8 | 0.0 | - | 7.4 | 3.2 | 25.8 | 6.5 | 1.4 | 0.0 | - | 36.9 | 11.4 | 25.7 | 3.8 | 0.8 | 0.0 | - | 41.7 | - |
| PHF | 0.542 | 0.788 | 0.594 | 0.500 | 0.000 | - | 0.743 | 0.429 | 0.775 | 0.500 | 0.500 | 0.000 | - | 0.697 | 0.639 | 0.912 | 0.511 | 0.625 | 0.000 | - | 0.924 | 0.820 | 0.784 | 0.563 | 0.500 | 0.000 | - | 0.806 | 0.900 |
| Lights | 12 | 57 | 18 | 5 | 0 | - | 92 | 11 | 27 | 3 | 6 | 0 | - | 47 | 23 | 175 | 46 | 10 | 0 | - | 254 | 82 | 178 | 27 | 6 | 0 | - | 293 | 686 |
| % Lights | 92.3 | 90.5 | 94.7 | 83.3 | - | - | 91.1 | 91.7 | 87.1 | 75.0 | 100.0 | - | - | 88.7 | 100.0 | 94.1 | 97.9 | 100.0 | - | - | 95.5 | 100.0 | 96.2 | 100.0 | 100.0 | - | - | 97.7 | 95.3 |
| Buses | 0 | 5 | 0 | 0 | 0 | - | 5 | 1 | 3 | 0 | 0 | 0 | - | 4 | 0 | 4 | 0 | 0 | 0 | - | 4 | 0 | 2 | 0 | 0 | 0 | - | 2 | 15 |
| % Buses | 0.0 | 7.9 | 0.0 | 0.0 | - | - | 5.0 | 8.3 | 9.7 | 0.0 | 0.0 | - | - | 7.5 | 0.0 | 2.2 | 0.0 | 0.0 | - | - | 1.5 | 0.0 | 1.1 | 0.0 | 0.0 | - | - | 0.7 | 2.1 |
| Trucks | 1 | 1 | 1 | 0 | 0 | - | 3 | 0 | 1 | 1 | 0 | 0 | - | 2 | 0 | 7 | 1 | 0 | 0 | - | 8 | 0 | 5 | 0 | 0 | 0 | - | 5 | 18 |
| % Trucks | 7.7 | 1.6 | 5.3 | 0.0 | - | - | 3.0 | 0.0 | 3.2 | 25.0 | 0.0 | - | - | 3.8 | 0.0 | 3.8 | 2.1 | 0.0 | - | - | 3.0 | 0.0 | 2.7 | 0.0 | 0.0 | - | - | 1.7 | 2.5 |
| Bicycles on Road | 0 | 0 | 0 | 1 | 0 | - | 1 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 1 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | 16.7 | - | - | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.1 |
| Bicycles on Crosswalk | - | - | - | - | - | 0 | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 2 | - | - | - | - | - | - | 2 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 25.0 | - | - | - | - | - | - | 33.3 | - | - | - | - | - | - | 12.5 | - | - |
| Pedestrians | - | - | - | - | - | 3 | - | - | - | - | - | - | 3 | - | - | - | - | - | - | 4 | - | - | - | - | - | - | 14 | - | - |
| % Pedestrians | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 75.0 | - | - | - | - | - | - | 66.7 | - | - | - | - | - | - | 87.5 | - | - |

Utica, NY
State St/Columbia St
Wednesday, July 18, 2018
Location: 43.103556, -75.238103

TRI-STATE TRAFFIC DATA
www.TSTData.com
184 Baker Rd
Coatesville, Pennsylvania, United States 19320
610-466-1469
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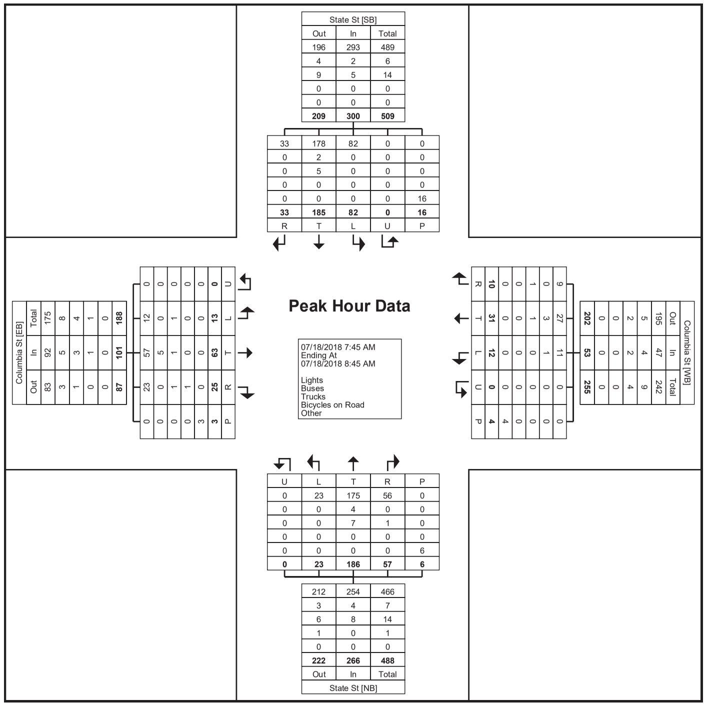
Count Name: 4. State St and Columbia St
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 4




Turning Movement Peak Hour Data Plot (7:45 AM)

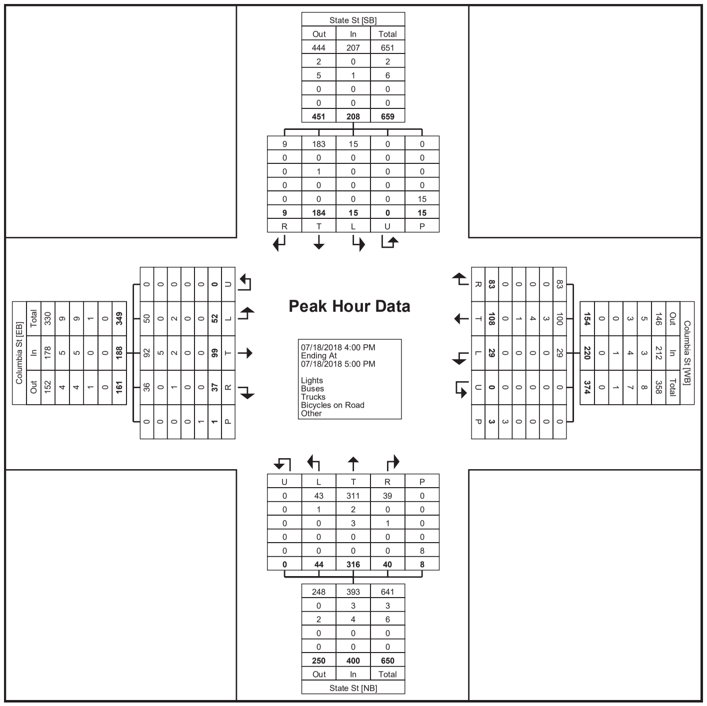
Utica, NY
State St/Columbia St
Wednesday, July 18, 2018
Location: 43.103556, -75.238103

TRI-STATE TRAFFIC DATA
www.TSTData.com
184 Baker Rd
Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: 4. State St and Columbia St
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 5

## Turning Movement Peak Hour Data (4:00 PM)

| | Columbia St Eastbound | | | | | | | Columbia St Westbound | | | | | | | State St Northbound | | | | | | | State St Southbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | Right on Red | U-Turn | Peds | App. Total | Left | Thru | Right | Right on Red | U-Turn | Peds | App. Total | Left | Thru | Right | Right on Red | U-Turn | Peds | App. Total | Left | Thru | Right | Right on Red | U-Turn | Peds | App. Total | Int. Total |
| 4:00 PM | 22 | 24 | 16 | 1 | 0 | 0 | 63 | 6 | 36 | 13 | 4 | 0 | 1 | 59 | 14 | 84 | 6 | 0 | 0 | 1 | 104 | 4 | 50 | 3 | 0 | 0 | 5 | 57 | 283 |
| 4:15 PM | 5 | 20 | 5 | 0 | 0 | 0 | 30 | 9 | 20 | 7 | 6 | 0 | 1 | 42 | 8 | 75 | 16 | 0 | 0 | 3 | 99 | 3 | 37 | 1 | 0 | 0 | 3 | 41 | 212 |
| 4:30 PM | 13 | 35 | 7 | 2 | 0 | 1 | 57 | 10 | 32 | 26 | 11 | 0 | 0 | 79 | 16 | 77 | 10 | 1 | 0 | 4 | 104 | 2 | 55 | 5 | 0 | 0 | 2 | 62 | 302 |
| 4:45 PM | 12 | 20 | 2 | 4 | 0 | 0 | 38 | 4 | 20 | 11 | 5 | 0 | 1 | 40 | 6 | 80 | 7 | 0 | 0 | 0 | 93 | 6 | 42 | 0 | 0 | 0 | 5 | 48 | 219 |
| Total | 52 | 99 | 30 | 7 | 0 | 1 | 188 | 29 | 108 | 57 | 26 | 0 | 3 | 220 | 44 | 316 | 39 | 1 | 0 | 8 | 400 | 15 | 184 | 9 | 0 | 0 | 15 | 208 | 1016 |
| Approach % | 27.7 | 52.7 | 16.0 | 3.7 | 0.0 | - | - | 13.2 | 49.1 | 25.9 | 11.8 | 0.0 | - | - | 11.0 | 79.0 | 9.8 | 0.3 | 0.0 | - | - | 7.2 | 88.5 | 4.3 | 0.0 | 0.0 | - | - | - |
| Total % | 5.1 | 9.7 | 3.0 | 0.7 | 0.0 | - | 18.5 | 2.9 | 10.6 | 5.6 | 2.6 | 0.0 | - | 21.7 | 4.3 | 31.1 | 3.8 | 0.1 | 0.0 | - | 39.4 | 1.5 | 18.1 | 0.9 | 0.0 | 0.0 | - | 20.5 | - |
| PHF | 0.591 | 0.707 | 0.469 | 0.438 | 0.000 | - | 0.746 | 0.725 | 0.750 | 0.548 | 0.591 | 0.000 | - | 0.696 | 0.688 | 0.940 | 0.609 | 0.250 | 0.000 | - | 0.962 | 0.625 | 0.836 | 0.450 | 0.000 | 0.000 | - | 0.839 | 0.841 |
| Lights | 50 | 92 | 29 | 7 | 0 | - | 178 | 29 | 100 | 57 | 26 | 0 | - | 212 | 43 | 311 | 38 | 1 | 0 | - | 393 | 15 | 183 | 9 | 0 | 0 | - | 207 | 990 |
| % Lights | 96.2 | 92.9 | 96.7 | 100.0 | - | - | 94.7 | 100.0 | 92.6 | 100.0 | 100.0 | - | - | 96.4 | 97.7 | 98.4 | 97.4 | 100.0 | - | - | 98.3 | 100.0 | 99.5 | 100.0 | - | - | - | 99.5 | 97.4 |
| Buses | 0 | 5 | 0 | 0 | 0 | - | 5 | 0 | 3 | 0 | 0 | 0 | - | 3 | 1 | 2 | 0 | 0 | 0 | - | 3 | 0 | 0 | 0 | 0 | 0 | - | 0 | 11 |
| % Buses | 0.0 | 5.1 | 0.0 | 0.0 | - | - | 2.7 | 0.0 | 2.8 | 0.0 | 0.0 | - | - | 1.4 | 2.3 | 0.6 | 0.0 | 0.0 | - | - | 0.8 | 0.0 | 0.0 | 0.0 | - | - | - | 0.0 | 1.1 |
| Trucks | 2 | 2 | 1 | 0 | 0 | - | 5 | 0 | 4 | 0 | 0 | 0 | - | 4 | 0 | 3 | 1 | 0 | 0 | - | 4 | 0 | 1 | 0 | 0 | 0 | - | 1 | 14 |
| % Trucks | 3.8 | 2.0 | 3.3 | 0.0 | - | - | 2.7 | 0.0 | 3.7 | 0.0 | 0.0 | - | - | 1.8 | 0.0 | 0.9 | 2.6 | 0.0 | - | - | 1.0 | 0.0 | 0.5 | 0.0 | - | - | - | 0.5 | 1.4 |
| Bicycles on Road | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 1 | 0 | 0 | 0 | - | 1 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 1 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.9 | 0.0 | 0.0 | - | - | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | - | 0.0 | 0.1 |
| Bicycles on Crosswalk | - | - | - | - | - | 0 | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 4 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 33.3 | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 26.7 | - | - |
| Pedestrians | - | - | - | - | - | 1 | - | - | - | - | - | - | 2 | - | - | - | - | - | - | 8 | - | - | - | - | - | - | 11 | - | - |
| % Pedestrians | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 66.7 | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 73.3 | - | - |




Turning Movement Peak Hour Data Plot (4:00 PM)

Utica, NY
State St/Court S
Wednesday, July 18, 2018
Location: 43.101268, -75.239344

**TRI-STATE TRAFFIC DATA**
www.TSTData.com
184 Baker Rd
Coatesville, Pennsylvania, United States 19320
610-466-1469 jvetterlein@tstdata.com
Serving Transportation Professionals Since 1995

Count Name: 5. State St. and Court St.
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 1

## Turning Movement Data

| Start Time | State St. Southbound | | | | | | | Court St Westbound | | | | | | | State St. Northbound | | | | | | | Court St. Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Int. Total |
| 7:00 AM | 3 | 0 | 19 | 4 | 0 | 2 | 26 | 1 | 1 | 19 | 0 | 0 | 0 | 21 | 1 | 1 | 15 | 10 | 0 | 1 | 27 | 7 | 2 | 54 | 15 | 0 | 0 | 78 | 152 |
| 7:15 AM | 2 | 3 | 26 | 5 | 0 | 2 | 36 | 10 | 0 | 23 | 3 | 0 | 0 | 36 | 0 | 0 | 17 | 10 | 0 | 2 | 27 | 12 | 2 | 66 | 21 | 0 | 2 | 101 | 200 |
| 7:30 AM | 1 | 0 | 25 | 5 | 0 | 3 | 31 | 5 | 3 | 35 | 6 | 0 | 3 | 49 | 0 | 2 | 15 | 7 | 0 | 2 | 24 | 20 | 5 | 68 | 25 | 0 | 1 | 118 | 222 |
| 7:45 AM | 12 | 2 | 39 | 15 | 0 | 4 | 68 | 17 | 1 | 37 | 9 | 0 | 0 | 64 | 3 | 2 | 33 | 13 | 0 | 0 | 51 | 34 | 5 | 121 | 26 | 0 | 3 | 186 | 369 |
| Hourly Total | 18 | 5 | 109 | 29 | 0 | 11 | 161 | 33 | 5 | 114 | 18 | 0 | 3 | 170 | 4 | 5 | 80 | 40 | 0 | 5 | 129 | 73 | 14 | 309 | 87 | 0 | 6 | 483 | 943 |
| 8:00 AM | 2 | 3 | 29 | 7 | 0 | 1 | 41 | 13 | 1 | 45 | 8 | 0 | 0 | 67 | 5 | 1 | 25 | 14 | 0 | 1 | 45 | 31 | 4 | 119 | 25 | 0 | 3 | 179 | 332 |
| 8:15 AM | 6 | 4 | 32 | 13 | 0 | 3 | 55 | 8 | 1 | 44 | 4 | 0 | 5 | 57 | 7 | 0 | 28 | 17 | 0 | 2 | 52 | 30 | 3 | 159 | 42 | 0 | 0 | 234 | 398 |
| 8:30 AM | 3 | 1 | 25 | 9 | 0 | 4 | 38 | 12 | 0 | 43 | 9 | 0 | 6 | 64 | 1 | 1 | 20 | 12 | 0 | 0 | 34 | 27 | 2 | 119 | 28 | 0 | 2 | 176 | 312 |
| 8:45 AM | 12 | 2 | 32 | 16 | 0 | 3 | 62 | 14 | 1 | 44 | 7 | 0 | 2 | 66 | 8 | 1 | 33 | 19 | 0 | 3 | 61 | 32 | 6 | 114 | 28 | 0 | 2 | 180 | 369 |
| Hourly Total | 23 | 10 | 118 | 45 | 0 | 11 | 196 | 47 | 3 | 176 | 28 | 0 | 13 | 254 | 21 | 3 | 106 | 62 | 0 | 6 | 192 | 120 | 15 | 511 | 123 | 0 | 7 | 769 | 1411 |
| 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 |
| 4:00 PM | 7 | 5 | 45 | 17 | 0 | 3 | 74 | 29 | 4 | 123 | 11 | 0 | 3 | 167 | 5 | 0 | 35 | 18 | 0 | 2 | 58 | 24 | 3 | 91 | 35 | 0 | 3 | 153 | 452 |
| 4:15 PM | 15 | 2 | 35 | 9 | 0 | 1 | 61 | 10 | 4 | 63 | 10 | 0 | 1 | 87 | 3 | 1 | 39 | 19 | 0 | 1 | 62 | 27 | 8 | 83 | 35 | 1 | 0 | 154 | 364 |
| 4:30 PM | 17 | 8 | 44 | 14 | 0 | 4 | 83 | 16 | 6 | 116 | 11 | 0 | 0 | 149 | 3 | 0 | 28 | 18 | 0 | 1 | 49 | 35 | 3 | 67 | 33 | 0 | 3 | 138 | 419 |
| 4:45 PM | 5 | 6 | 37 | 11 | 0 | 2 | 59 | 13 | 1 | 94 | 13 | 0 | 1 | 121 | 6 | 1 | 41 | 19 | 0 | 2 | 67 | 33 | 3 | 72 | 33 | 0 | 5 | 141 | 388 |
| Hourly Total | 44 | 21 | 161 | 51 | 0 | 10 | 277 | 68 | 15 | 396 | 45 | 0 | 5 | 524 | 17 | 2 | 143 | 74 | 0 | 6 | 236 | 119 | 17 | 313 | 136 | 1 | 11 | 586 | 1623 |
| 5:00 PM | 7 | 3 | 32 | 5 | 0 | 0 | 47 | 21 | 0 | 99 | 14 | 0 | 0 | 134 | 3 | 3 | 58 | 17 | 0 | 5 | 81 | 25 | 1 | 67 | 27 | 0 | 0 | 120 | 382 |
| 5:15 PM | 11 | 0 | 30 | 6 | 0 | 3 | 47 | 18 | 3 | 74 | 3 | 0 | 4 | 98 | 4 | 1 | 39 | 23 | 0 | 4 | 67 | 42 | 2 | 85 | 30 | 0 | 0 | 159 | 371 |
| 5:30 PM | 8 | 3 | 33 | 7 | 0 | 1 | 51 | 14 | 2 | 51 | 4 | 0 | 5 | 71 | 3 | 0 | 26 | 10 | 0 | 1 | 39 | 33 | 0 | 45 | 31 | 0 | 0 | 109 | 270 |
| 5:45 PM | 7 | 3 | 44 | 7 | 0 | 0 | 61 | 9 | 4 | 51 | 3 | 0 | 3 | 67 | 0 | 2 | 20 | 15 | 0 | 1 | 37 | 24 | 1 | 62 | 22 | 0 | 1 | 109 | 274 |
| Hourly Total | 33 | 9 | 139 | 25 | 0 | 4 | 206 | 62 | 9 | 275 | 24 | 0 | 12 | 370 | 10 | 6 | 143 | 65 | 0 | 11 | 224 | 124 | 4 | 259 | 110 | 0 | 1 | 497 | 1297 |
| 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Grand Total | 118 | 45 | 527 | 150 | 0 | 36 | 840 | 210 | 32 | 961 | 115 | 0 | 33 | 1318 | 52 | 16 | 472 | 241 | 0 | 28 | 781 | 436 | 50 | 1393 | 456 | 1 | 25 | 2336 | 5275 |
| Approach % | 14.0 | 5.4 | 62.7 | 17.9 | 0.0 | - | - | 15.9 | 2.4 | 72.9 | 8.7 | 0.0 | - | - | 6.7 | 2.0 | 60.4 | 30.9 | 0.0 | - | - | 18.7 | 2.1 | 59.6 | 19.5 | 0.0 | - | - | - |
| Total % | 2.2 | 0.9 | 10.0 | 2.8 | 0.0 | - | 15.9 | 4.0 | 0.6 | 18.2 | 2.2 | 0.0 | - | 25.0 | 1.0 | 0.3 | 8.9 | 4.6 | 0.0 | - | 14.8 | 8.3 | 0.9 | 26.4 | 8.6 | 0.0 | - | 44.3 | - |
| Lights | 116 | 44 | 512 | 146 | 0 | - | 818 | 209 | 32 | 944 | 110 | 0 | - | 1295 | 52 | 15 | 463 | 239 | 0 | - | 769 | 423 | 49 | 1378 | 443 | 1 | - | 2294 | 5176 |
| % Lights | 98.3 | 97.8 | 97.2 | 97.3 | - | - | 97.4 | 99.5 | 100.0 | 98.2 | 95.7 | - | - | 98.3 | 100.0 | 93.8 | 98.1 | 99.2 | - | - | 98.5 | 97.0 | 98.0 | 98.9 | 97.1 | 100.0 | - | 98.2 | 98.1 |
| Buses | 0 | 0 | 3 | 1 | 0 | - | 4 | 0 | 0 | 7 | 3 | 0 | - | 10 | 0 | 0 | 3 | 0 | 0 | - | 3 | 6 | 0 | 8 | 3 | 0 | - | 17 | 34 |
| % Buses | 0.0 | 0.0 | 0.6 | 0.7 | - | - | 0.5 | 0.0 | 0.0 | 0.7 | 2.6 | - | - | 0.8 | 0.0 | 0.0 | 0.6 | 0.0 | - | - | 0.4 | 1.4 | 0.0 | 0.6 | 0.7 | 0.0 | - | 0.7 | 0.6 |
| Trucks | 2 | 1 | 12 | 3 | 0 | - | 18 | 1 | 0 | 8 | 2 | 0 | - | 11 | 0 | 1 | 6 | 1 | 0 | - | 8 | 7 | 0 | 6 | 10 | 0 | - | 23 | 60 |
| % Trucks | 1.7 | 2.2 | 2.3 | 2.0 | - | - | 2.1 | 0.5 | 0.0 | 0.8 | 1.7 | - | - | 0.8 | 0.0 | 6.3 | 1.3 | 0.4 | - | - | 1.0 | 1.6 | 0.0 | 0.4 | 2.2 | 0.0 | - | 1.0 | 1.1 |
| Bicycles on Road | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 2 | 0 | 0 | - | 2 | 0 | 0 | 0 | 1 | 0 | - | 1 | 0 | 1 | 1 | 0 | 0 | - | 2 | 5 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | - | - | 0.2 | 0.0 | 0.0 | 0.0 | 0.4 | - | - | 0.1 | 0.0 | 2.0 | 0.1 | 0.0 | 0.0 | - | 0.1 | 0.1 |
| Bicycles on Crosswalk | - | - | - | - | - | 3 | - | - | - | - | - | - | 3 | - | - | - | - | - | - | 3 | - | - | - | - | - | - | 3 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | 8.3 | - | - | - | - | - | - | 9.1 | - | - | - | - | - | - | 10.7 | - | - | - | - | - | - | 12.0 | - | - |
| Pedestrians | - | - | - | - | - | 33 | - | - | - | - | - | - | 30 | - | - | - | - | - | - | 25 | - | - | - | - | - | - | 22 | - | - |
| % Pedestrians | - | - | - | - | - | 91.7 | - | - | - | - | - | - | 90.9 | - | - | - | - | - | - | 89.3 | - | - | - | - | - | - | 88.0 | - | - |

Utica, NY
State St/Court S
Wednesday, July 18, 2018
Location: 43.101268, -75.239344

**TRI-STATE TRAFFIC DATA**
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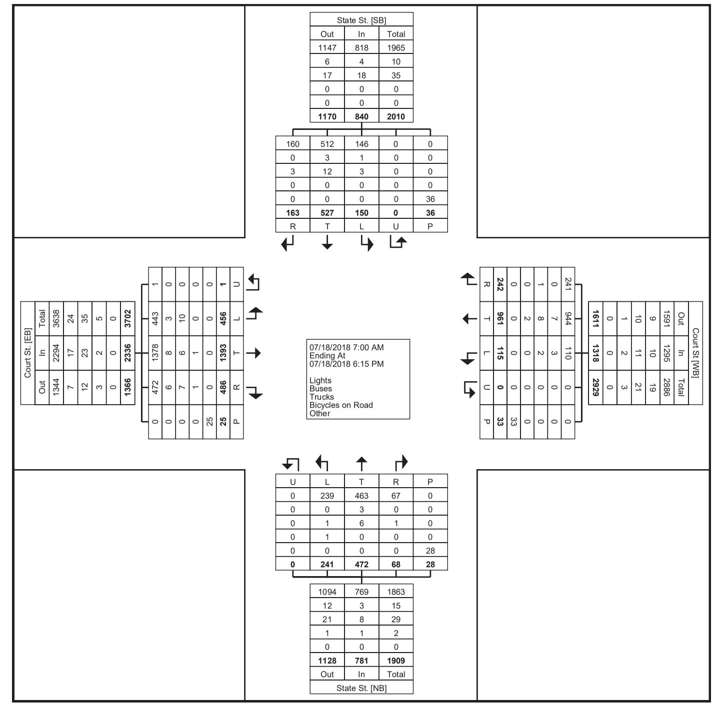
Count Name: 5. State St. and Court St.
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 2




Turning Movement Data Plot

Utica, NY
State St/Court S
Wednesday, July 18, 2018
Location: 43.101268, -
75.239344

www.TSTData.com
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-466-1469 jvetterlein@tstdata.com
Serving Transportation Professionals Since 1995

Count Name: 5. State St. and
Court St.
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 3

## Turning Movement Peak Hour Data (7:45 AM)

| | State St. Southbound | | | | | | | Court St Westbound | | | | | | | State St. Northbound | | | | | | | Court St. Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Int. Total |
| 7:45 AM | 12 | 2 | 39 | 15 | 0 | 4 | 68 | 17 | 1 | 37 | 9 | 0 | 0 | 64 | 3 | 2 | 33 | 13 | 0 | 0 | 51 | 34 | 5 | 121 | 26 | 0 | 3 | 186 | 369 |
| 8:00 AM | 2 | 3 | 29 | 7 | 0 | 1 | 41 | 13 | 1 | 45 | 8 | 0 | 0 | 67 | 5 | 1 | 25 | 14 | 0 | 1 | 45 | 31 | 4 | 119 | 25 | 0 | 3 | 179 | 332 |
| 8:15 AM | 6 | 4 | 32 | 13 | 0 | 3 | 55 | 8 | 1 | 44 | 4 | 0 | 5 | 57 | 7 | 0 | 28 | 17 | 0 | 2 | 52 | 30 | 3 | 159 | 42 | 0 | 0 | 234 | 398 |
| 8:30 AM | 3 | 1 | 25 | 9 | 0 | 4 | 38 | 12 | 0 | 43 | 9 | 0 | 6 | 64 | 1 | 1 | 20 | 12 | 0 | 0 | 34 | 27 | 2 | 119 | 28 | 0 | 2 | 176 | 312 |
| Total | 23 | 10 | 125 | 44 | 0 | 12 | 202 | 50 | 3 | 169 | 30 | 0 | 11 | 252 | 16 | 4 | 106 | 56 | 0 | 3 | 182 | 122 | 14 | 518 | 121 | 0 | 8 | 775 | 1411 |
| Approach % | 11.4 | 5.0 | 61.9 | 21.8 | 0.0 | - | - | 19.8 | 1.2 | 67.1 | 11.9 | 0.0 | - | - | 8.8 | 2.2 | 58.2 | 30.8 | 0.0 | - | - | 15.7 | 1.8 | 66.8 | 15.6 | 0.0 | - | - | - |
| Total % | 1.6 | 0.7 | 8.9 | 3.1 | 0.0 | - | 14.3 | 3.5 | 0.2 | 12.0 | 2.1 | 0.0 | - | 17.9 | 1.1 | 0.3 | 7.5 | 4.0 | 0.0 | - | 12.9 | 8.6 | 1.0 | 36.7 | 8.6 | 0.0 | - | 54.9 | - |
| PHF | 0.479 | 0.625 | 0.801 | 0.733 | 0.000 | - | 0.743 | 0.735 | 0.750 | 0.939 | 0.833 | 0.000 | - | 0.940 | 0.571 | 0.500 | 0.803 | 0.824 | 0.000 | - | 0.875 | 0.897 | 0.700 | 0.814 | 0.720 | 0.000 | - | 0.828 | 0.886 |
| Lights | 23 | 9 | 120 | 44 | 0 | - | 196 | 49 | 3 | 162 | 26 | 0 | - | 240 | 16 | 4 | 104 | 56 | 0 | - | 180 | 121 | 13 | 512 | 116 | 0 | - | 762 | 1378 |
| % Lights | 100.0 | 90.0 | 96.0 | 100.0 | - | - | 97.0 | 98.0 | 100.0 | 95.9 | 86.7 | - | - | 95.2 | 100.0 | 100.0 | 98.1 | 100.0 | - | - | 98.9 | 99.2 | 92.9 | 98.8 | 95.9 | - | - | 98.3 | 97.7 |
| Buses | 0 | 0 | 1 | 0 | 0 | - | 1 | 0 | 0 | 3 | 3 | 0 | - | 6 | 0 | 0 | 2 | 0 | 0 | - | 2 | 1 | 0 | 3 | 2 | 0 | - | 6 | 15 |
| % Buses | 0.0 | 0.0 | 0.8 | 0.0 | - | - | 0.5 | 0.0 | 0.0 | 1.8 | 10.0 | - | - | 2.4 | 0.0 | 0.0 | 1.9 | 0.0 | - | - | 1.1 | 0.8 | 0.0 | 0.6 | 1.7 | - | - | 0.8 | 1.1 |
| Trucks | 0 | 1 | 4 | 0 | 0 | - | 5 | 1 | 0 | 3 | 1 | 0 | - | 5 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 3 | 3 | 0 | - | 6 | 16 |
| % Trucks | 0.0 | 10.0 | 3.2 | 0.0 | - | - | 2.5 | 2.0 | 0.0 | 1.8 | 3.3 | - | - | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.6 | 2.5 | - | - | 0.8 | 1.1 |
| Bicycles on Road | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 1 | 0 | 0 | - | 1 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 1 | 0 | 0 | 0 | - | 1 | 2 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 | - | - | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 7.1 | 0.0 | 0.0 | - | - | 0.1 | 0.1 |
| Bicycles on Crosswalk | - | - | - | - | - | 2 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | 16.7 | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 0.0 | - | - |
| Pedestrians | - | - | - | - | - | 10 | - | - | - | - | - | - | 11 | - | - | - | - | - | - | 3 | - | - | - | - | - | - | 8 | - | - |
| % Pedestrians | - | - | - | - | - | 83.3 | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 100.0 | - | - |

Utica, NY
State St/Court S
Wednesday, July 18, 2018
Location: 43.101268, -
75.239344

www.TSTData.com
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-466-1469 jvetterlein@tstdata.com
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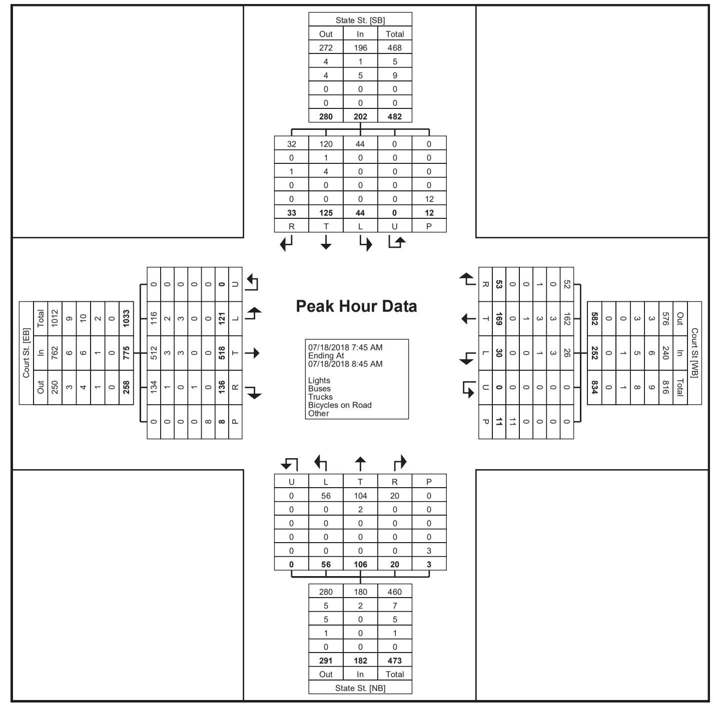
Count Name: 5. State St. and
Court St.
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 4




Turning Movement Peak Hour Data Plot (7:45 AM)

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Coatesville, Pennsylvania, United States 19320
610-466-1469 jvetterlein@tstdata.com
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## Turning Movement Peak Hour Data (4:00 PM)

| | State St. Southbound | | | | | | | Court St Westbound | | | | | | | State St. Northbound | | | | | | | Court St. Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Int. Total |
| 4:00 PM | 7 | 5 | 45 | 17 | 0 | 3 | 74 | 29 | 4 | 123 | 11 | 0 | 3 | 167 | 5 | 0 | 35 | 18 | 0 | 2 | 58 | 24 | 3 | 91 | 35 | 0 | 3 | 153 | 452 |
| 4:15 PM | 15 | 2 | 35 | 9 | 0 | 1 | 61 | 10 | 4 | 63 | 10 | 0 | 1 | 87 | 3 | 1 | 39 | 19 | 0 | 1 | 62 | 27 | 8 | 83 | 35 | 1 | 0 | 154 | 364 |
| 4:30 PM | 17 | 8 | 44 | 14 | 0 | 4 | 83 | 16 | 6 | 116 | 11 | 0 | 0 | 149 | 3 | 0 | 28 | 18 | 0 | 1 | 49 | 35 | 3 | 67 | 33 | 0 | 3 | 138 | 419 |
| 4:45 PM | 5 | 6 | 37 | 11 | 0 | 2 | 59 | 13 | 1 | 94 | 13 | 0 | 1 | 121 | 6 | 1 | 41 | 19 | 0 | 2 | 67 | 33 | 3 | 72 | 33 | 0 | 5 | 141 | 388 |
| Total | 44 | 21 | 161 | 51 | 0 | 10 | 277 | 68 | 15 | 396 | 45 | 0 | 5 | 524 | 17 | 2 | 143 | 74 | 0 | 6 | 236 | 119 | 17 | 313 | 136 | 1 | 11 | 586 | 1623 |
| Approach % | 15.9 | 7.6 | 58.1 | 18.4 | 0.0 | - | - | 13.0 | 2.9 | 75.6 | 8.6 | 0.0 | - | - | 7.2 | 0.8 | 60.6 | 31.4 | 0.0 | - | - | 20.3 | 2.9 | 53.4 | 23.2 | 0.2 | - | - | - |
| Total % | 2.7 | 1.3 | 9.9 | 3.1 | 0.0 | - | 17.1 | 4.2 | 0.9 | 24.4 | 2.8 | 0.0 | - | 32.3 | 1.0 | 0.1 | 8.8 | 4.6 | 0.0 | - | 14.5 | 7.3 | 1.0 | 19.3 | 8.4 | 0.1 | - | 36.1 | - |
| PHF | 0.647 | 0.656 | 0.894 | 0.750 | 0.000 | - | 0.834 | 0.586 | 0.625 | 0.805 | 0.865 | 0.000 | - | 0.784 | 0.708 | 0.500 | 0.872 | 0.974 | 0.000 | - | 0.881 | 0.850 | 0.531 | 0.860 | 0.971 | 0.250 | - | 0.951 | 0.898 |
| Lights | 44 | 21 | 160 | 50 | 0 | - | 275 | 68 | 15 | 391 | 45 | 0 | - | 519 | 17 | 1 | 142 | 74 | 0 | - | 234 | 114 | 17 | 308 | 133 | 1 | - | 573 | 1601 |
| % Lights | 100.0 | 100.0 | 99.4 | 98.0 | - | - | 99.3 | 100.0 | 100.0 | 98.7 | 100.0 | - | - | 99.0 | 100.0 | 50.0 | 99.3 | 100.0 | - | - | 99.2 | 95.8 | 100.0 | 98.4 | 97.8 | 100.0 | - | 97.8 | 98.6 |
| Buses | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 1 | 0 | 0 | - | 1 | 0 | 0 | 1 | 0 | 0 | - | 1 | 1 | 0 | 3 | 1 | 0 | - | 5 | 7 |
| % Buses | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | - | - | 0.2 | 0.0 | 0.0 | 0.7 | 0.0 | - | - | 0.4 | 0.8 | 0.0 | 1.0 | 0.7 | 0.0 | - | 0.9 | 0.4 |
| Trucks | 0 | 0 | 1 | 1 | 0 | - | 2 | 0 | 0 | 3 | 0 | 0 | - | 3 | 0 | 1 | 0 | 0 | 0 | - | 1 | 4 | 0 | 1 | 2 | 0 | - | 7 | 13 |
| % Trucks | 0.0 | 0.0 | 0.6 | 2.0 | - | - | 0.7 | 0.0 | 0.0 | 0.8 | 0.0 | - | - | 0.6 | 0.0 | 50.0 | 0.0 | 0.0 | - | - | 0.4 | 3.4 | 0.0 | 0.3 | 1.5 | 0.0 | - | 1.2 | 0.8 |
| Bicycles on Road | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 1 | 0 | 0 | - | 1 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 1 | 0 | 0 | - | 1 | 2 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | - | - | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | - | 0.2 | 0.1 |
| Bicycles on Crosswalk | - | - | - | - | - | 0 | - | - | - | - | - | - | 2 | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 2 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 40.0 | - | - | - | - | - | - | 16.7 | - | - | - | - | - | - | 18.2 | - | - |
| Pedestrians | - | - | - | - | - | 10 | - | - | - | - | - | - | 3 | - | - | - | - | - | - | 5 | - | - | - | - | - | - | 9 | - | - |
| % Pedestrians | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 60.0 | - | - | - | - | - | - | 83.3 | - | - | - | - | - | - | 81.8 | - | - |



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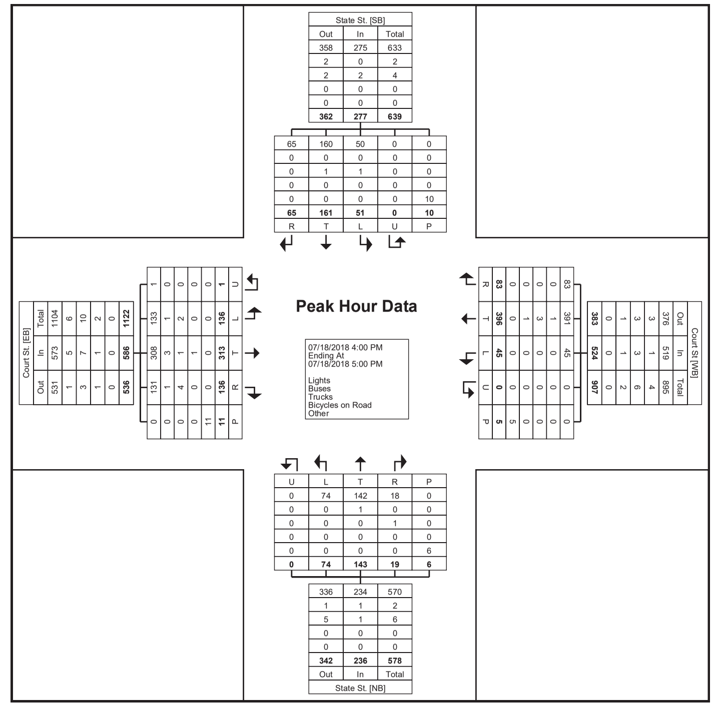



Turning Movement Peak Hour Data Plot (4:00 PM)

Utica, NY
State St/Court S
Wednesday, July 18, 2018
Location: 43.101268, -75.239344

www.TSTData.com
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-466-1469 jvetterlein@tstdata.com
Serving Transportation Professionals Since 1995

Count Name: 5. State St. and Court St.
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 7

**6. Cornelia and Oriskany - TMC**
Wed Jul 18, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549084, Location: 43.10452, -75.234856, Site Code: Utica, New York

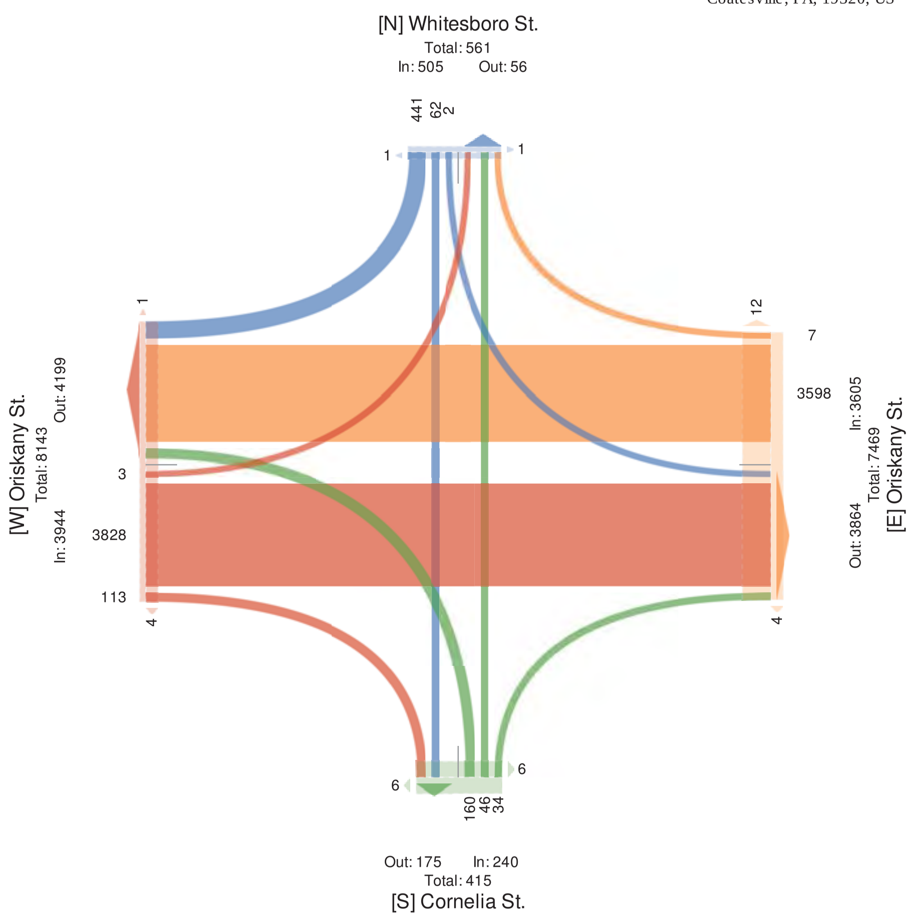
Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg / Direction | Oriskany St. Eastbound | | | | | | Oriskany St. Westbound | | | | | | Cornelia St. Northbound | | | | | | Whitesboro St. Southbound | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | L | T | R | U | App | Ped* | L | T | R | U | App | Ped* | L | T | R | U | App | Ped* | L | T | R | U | App | Ped* | Int |
| 2018-07-18 7:00AM | 0 | 159 | 3 | 0 | **162** | 0 | 0 | 185 | 0 | 0 | **185** | 0 | 3 | 1 | 1 | 0 | **5** | 0 | 0 | 1 | 13 | 0 | **14** | 0 | **366** |
| 7:15AM | 0 | 208 | 7 | 0 | **215** | 0 | 0 | 199 | 0 | 0 | **199** | 0 | 2 | 0 | 2 | 0 | **4** | 1 | 0 | 6 | 18 | 0 | **24** | 0 | **442** |
| 7:30AM | 0 | 241 | 10 | 0 | **251** | 0 | 0 | 251 | 0 | 0 | **251** | 0 | 4 | 0 | 1 | 0 | **5** | 0 | 0 | 2 | 15 | 0 | **17** | 0 | **524** |
| 7:45AM | 0 | 268 | 12 | 0 | **280** | 0 | 0 | 283 | 0 | 0 | **283** | 0 | 7 | 8 | 0 | 0 | **15** | 0 | 0 | 6 | 30 | 0 | **36** | 0 | **614** |
| Hourly Total | 0 | 876 | 32 | 0 | **908** | 0 | 0 | 918 | 0 | 0 | **918** | 0 | 16 | 9 | 4 | 0 | **29** | 1 | 0 | 15 | 76 | 0 | **91** | 0 | **1946** |
| 8:00AM | 0 | 251 | 11 | 0 | **262** | 1 | 0 | 198 | 0 | 0 | **198** | 0 | 6 | 1 | 0 | 0 | **7** | 0 | 0 | 6 | 24 | 0 | **30** | 0 | **497** |
| 8:15AM | 1 | 233 | 17 | 0 | **251** | 0 | 0 | 228 | 1 | 0 | **229** | 0 | 11 | 2 | 1 | 0 | **14** | 1 | 0 | 4 | 11 | 0 | **15** | 0 | **509** |
| 8:30AM | 0 | 212 | 11 | 0 | **223** | 0 | 0 | 197 | 0 | 0 | **197** | 5 | 4 | 5 | 0 | 0 | **9** | 3 | 0 | 2 | 17 | 0 | **19** | 0 | **448** |
| 8:45AM | 2 | 225 | 8 | 0 | **235** | 0 | 0 | 206 | 0 | 0 | **206** | 2 | 8 | 6 | 2 | 0 | **16** | 3 | 0 | 4 | 15 | 0 | **19** | 0 | **476** |
| Hourly Total | 3 | 921 | 47 | 0 | **971** | 1 | 0 | 829 | 1 | 0 | **830** | 7 | 29 | 14 | 3 | 0 | **46** | 7 | 0 | 16 | 67 | 0 | **83** | 0 | **1930** |
| 9:00AM | 0 | 0 | 0 | 0 | **0** | 0 | 0 | 0 | 0 | 0 | **0** | 0 | 0 | 0 | 0 | 0 | **0** | 0 | 0 | 0 | 0 | 0 | **0** | 0 | **0** |
| Hourly Total | 0 | 0 | 0 | 0 | **0** | 0 | 0 | 0 | 0 | 0 | **0** | 0 | 0 | 0 | 0 | 0 | **0** | 0 | 0 | 0 | 0 | 0 | **0** | 0 | **0** |
| 4:00PM | 0 | 240 | 5 | 0 | **245** | 0 | 0 | 280 | 1 | 0 | **281** | 4 | 26 | 3 | 3 | 0 | **32** | 0 | 0 | 6 | 66 | 0 | **72** | 1 | **630** |
| 4:15PM | 0 | 287 | 4 | 0 | **291** | 0 | 0 | 236 | 0 | 0 | **236** | 0 | 14 | 4 | 5 | 0 | **23** | 1 | 0 | 2 | 36 | 0 | **38** | 0 | **588** |
| 4:30PM | 0 | 273 | 3 | 0 | **276** | 0 | 0 | 312 | 0 | 0 | **312** | 0 | 20 | 6 | 8 | 0 | **34** | 0 | 0 | 3 | 58 | 0 | **61** | 0 | **683** |
| 4:45PM | 0 | 249 | 7 | 0 | **256** | 0 | 0 | 248 | 1 | 0 | **249** | 1 | 13 | 2 | 1 | 0 | **16** | 1 | 0 | 4 | 19 | 0 | **23** | 0 | **544** |
| Hourly Total | 0 | 1049 | 19 | 0 | **1068** | 0 | 0 | 1076 | 2 | 0 | **1078** | 5 | 73 | 15 | 17 | 0 | **105** | 2 | 0 | 15 | 179 | 0 | **194** | 1 | **2445** |
| 5:00PM | 0 | 274 | 6 | 0 | **280** | 0 | 0 | 237 | 1 | 0 | **238** | 1 | 25 | 0 | 6 | 0 | **31** | 2 | 0 | 4 | 33 | 0 | **37** | 0 | **586** |
| 5:15PM | 0 | 282 | 3 | 0 | **285** | 2 | 0 | 215 | 1 | 0 | **216** | 1 | 5 | 3 | 2 | 0 | **10** | 0 | 0 | 6 | 32 | 0 | **38** | 0 | **549** |
| 5:30PM | 0 | 237 | 3 | 0 | **240** | 2 | 0 | 174 | 1 | 0 | **175** | 1 | 5 | 2 | 2 | 0 | **9** | 0 | 0 | 5 | 34 | 0 | **39** | 1 | **463** |
| 5:45PM | 0 | 189 | 3 | 0 | **192** | 0 | 0 | 149 | 1 | 0 | **150** | 1 | 7 | 3 | 0 | 0 | **10** | 0 | 2 | 1 | 20 | 0 | **23** | 0 | **375** |
| Hourly Total | 0 | 982 | 15 | 0 | **997** | 4 | 0 | 775 | 4 | 0 | **779** | 4 | 42 | 8 | 10 | 0 | **60** | 2 | 2 | 16 | 119 | 0 | **137** | 1 | **1973** |
| 6:00PM | 0 | 0 | 0 | 0 | **0** | 0 | 0 | 0 | 0 | 0 | **0** | 0 | 0 | 0 | 0 | 0 | **0** | 0 | 0 | 0 | 0 | 0 | **0** | 0 | **0** |
| Hourly Total | 0 | 0 | 0 | 0 | **0** | 0 | 0 | 0 | 0 | 0 | **0** | 0 | 0 | 0 | 0 | 0 | **0** | 0 | 0 | 0 | 0 | 0 | **0** | 0 | **0** |
| **Total** | 3 | 3828 | 113 | 0 | **3944** | 5 | 0 | 3598 | 7 | 0 | **3605** | 16 | 160 | 46 | 34 | 0 | **240** | 12 | 2 | 62 | 441 | 0 | **505** | 2 | **8294** |
| **% Approach** | 0.1% | 97.1% | 2.9% | 0% | - | - | 0% | 99.8% | 0.2% | 0% | - | - | 66.7% | 19.2% | 14.2% | 0% | - | - | 0.4% | 12.3% | 87.3% | 0% | - | - | - |
| **% Total** | 0% | 46.2% | 1.4% | 0% | **47.6%** | - | 0% | 43.4% | 0.1% | 0% | **43.5%** | - | 1.9% | 0.6% | 0.4% | 0% | **2.9%** | - | 0% | 0.7% | 5.3% | 0% | **6.1%** | - | - |
| **Lights** | 1 | 3685 | 111 | 0 | **3797** | - | 0 | 3446 | 7 | 0 | **3453** | - | 158 | 45 | 34 | 0 | **237** | - | 2 | 59 | 423 | 0 | **484** | - | 7971 |
| **% Lights** | 33.3% | 96.3% | 98.2% | 0% | **96.3%** | - | 0% | 95.8% | 100% | 0% | **95.8%** | - | 98.8% | 97.8% | 100% | 0% | **98.8%** | - | 100% | 95.2% | 95.9% | 0% | **95.8%** | - | 96.1% |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 123 | 2 | 0 | **125** | - | 0 | 132 | 0 | 0 | **132** | - | 2 | 1 | 0 | 0 | **3** | - | 0 | 3 | 16 | 0 | **19** | - | 279 |
| **% Articulated Trucks and Single-Unit Trucks** | 0% | 3.2% | 1.8% | 0% | **3.2%** | - | 0% | 3.7% | 0% | 0% | **3.7%** | - | 1.3% | 2.2% | 0% | 0% | **1.3%** | - | 0% | 4.8% | 3.6% | 0% | **3.8%** | - | 3.4% |
| **Buses** | 0 | 20 | 0 | 0 | **20** | - | 0 | 20 | 0 | 0 | **20** | - | 0 | 0 | 0 | 0 | **0** | - | 0 | 0 | 2 | 0 | **2** | - | 42 |
| **% Buses** | 0% | 0.5% | 0% | 0% | **0.5%** | - | 0% | 0.6% | 0% | 0% | **0.6%** | - | 0% | 0% | 0% | 0% | **0%** | - | 0% | 0% | 0.5% | 0% | **0.4%** | - | 0.5% |
| **Bicycles on Road** | 2 | 0 | 0 | 0 | **2** | - | 0 | 0 | 0 | 0 | **0** | - | 0 | 0 | 0 | 0 | **0** | - | 0 | 0 | 0 | 0 | **0** | - | 2 |
| **% Bicycles on Road** | 66.7% | 0% | 0% | 0% | **0.1%** | - | 0% | 0% | 0% | 0% | **0%** | - | 0% | 0% | 0% | 0% | **0%** | - | 0% | 0% | 0% | 0% | **0%** | - | 0% |
| Pedestrians | - | - | - | - | - | 5 | - | - | - | - | - | 13 | - | - | - | - | - | 9 | - | - | - | - | - | 2 | |
| % Pedestrians | - | - | - | - | - | 100% | - | - | - | - | - | 81.3% | - | - | - | - | - | 75.0% | - | - | - | - | - | 100% | - |
| Bicycles on Crosswalk | - | - | - | - | - | 0 | - | - | - | - | - | 3 | - | - | - | - | - | 3 | - | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | - | 0% | - | - | - | - | - | 18.8% | - | - | - | - | - | 25.0% | - | - | - | - | - | 0% | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

**6. Cornelia and Oriskany - TMC**
Wed Jul 18, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549084, Location: 43.10452, -75.234856, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US






**6. Cornelia and Oriskany - TMC**
Wed Jul 18, 2018
AM Peak (7:30AM - 8:30AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549084, Location: 43.10452, -75.234856, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

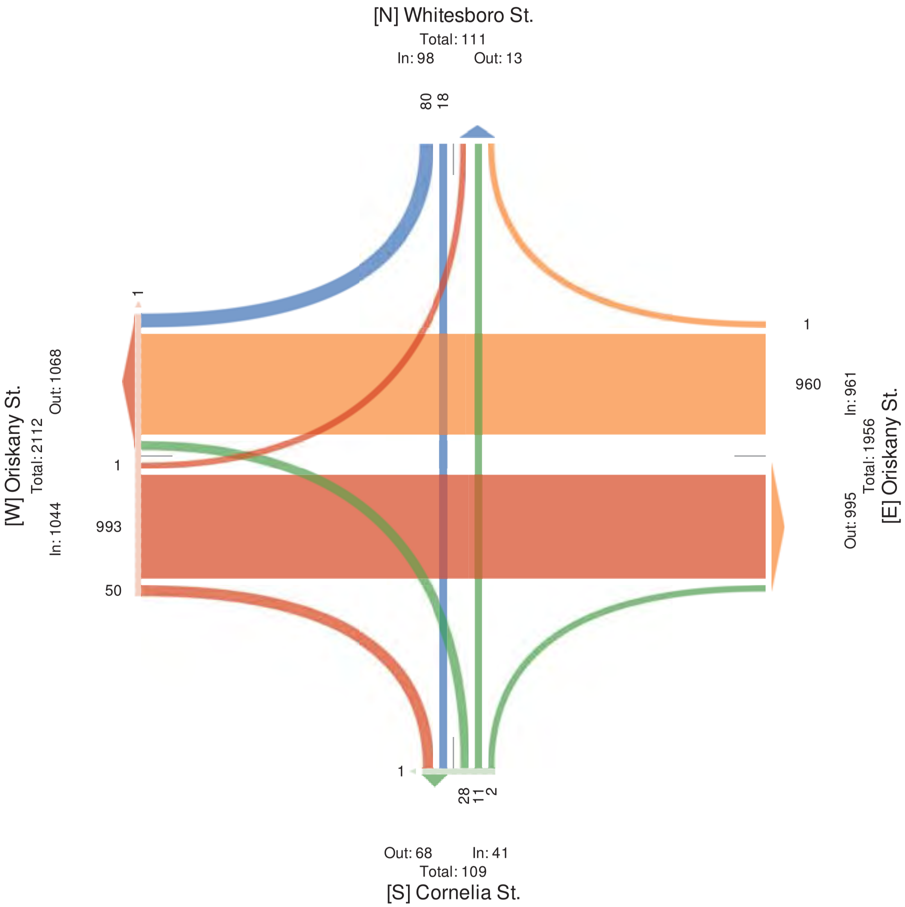
| Leg<br>Direction | Oriskany St.<br>Eastbound | | | | | | Oriskany St.<br>Westbound | | | | | | Cornelia St.<br>Northbound | | | | | | Whitesboro St.<br>Southbound | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | L | T | R | U | App | Ped* | L | T | R | U | App | Ped* | L | T | R | U | App | Ped* | L | T | R | U | App | Ped* | Int |
| 2018-07-18 7:30AM | 0 | 241 | 10 | 0 | **251** | 0 | 0 | 251 | 0 | 0 | **251** | 0 | 4 | 0 | 1 | 0 | **5** | 0 | 0 | 2 | 15 | 0 | **17** | 0 | **524** |
| 7:45AM | 0 | 268 | 12 | 0 | **280** | 0 | 0 | 283 | 0 | 0 | **283** | 0 | 7 | 8 | 0 | 0 | **15** | 0 | 0 | 6 | 30 | 0 | **36** | 0 | **614** |
| 8:00AM | 0 | 251 | 11 | 0 | **262** | 1 | 0 | 198 | 0 | 0 | **198** | 0 | 6 | 1 | 0 | 0 | **7** | 0 | 0 | 6 | 24 | 0 | **30** | 0 | **497** |
| 8:15AM | 1 | 233 | 17 | 0 | **251** | 0 | 0 | 228 | 1 | 0 | **229** | 0 | 11 | 2 | 1 | 0 | **14** | 1 | 0 | 4 | 11 | 0 | **15** | 0 | **509** |
| **Total** | 1 | 993 | 50 | 0 | **1044** | 1 | 0 | 960 | 1 | 0 | **961** | 0 | 28 | 11 | 2 | 0 | **41** | 1 | 0 | 18 | 80 | 0 | **98** | 0 | **2144** |
| **% Approach** | 0.1% | 95.1% | 4.8% | 0% | - | - | 0% | 99.9% | 0.1% | 0% | - | - | 68.3% | 26.8% | 4.9% | 0% | - | - | 0% | 18.4% | 81.6% | 0% | - | - | - |
| **% Total** | 0% | 46.3% | 2.3% | 0% | **48.7%** | - | 0% | 44.8% | 0% | 0% | **44.8%** | - | 1.3% | 0.5% | 0.1% | 0% | **1.9%** | - | 0% | 0.8% | 3.7% | 0% | **4.6%** | - | - |
| **PHF** | 0.250 | 0.926 | 0.735 | - | **0.932** | - | - | 0.848 | 0.250 | - | **0.849** | - | 0.636 | 0.344 | 0.500 | - | **0.683** | - | - | 0.750 | 0.667 | - | **0.681** | - | 0.873 |
| **Lights** | 0 | 941 | 50 | 0 | **991** | - | 0 | 903 | 1 | 0 | **904** | - | 28 | 10 | 2 | 0 | **40** | - | 0 | 17 | 71 | 0 | **88** | - | 2023 |
| **% Lights** | 0% | 94.8% | 100% | 0% | **94.9%** | - | 0% | 94.1% | 100% | 0% | **94.1%** | - | 100% | 90.9% | 100% | 0% | **97.6%** | - | 0% | 94.4% | 88.8% | 0% | **89.8%** | - | 94.4% |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 43 | 0 | 0 | **43** | - | 0 | 49 | 0 | 0 | **49** | - | 0 | 1 | 0 | 0 | **1** | - | 0 | 1 | 8 | 0 | **9** | - | 102 |
| **% Articulated Trucks and Single-Unit Trucks** | 0% | 4.3% | 0% | 0% | **4.1%** | - | 0% | 5.1% | 0% | 0% | **5.1%** | - | 0% | 9.1% | 0% | 0% | **2.4%** | - | 0% | 5.6% | 10.0% | 0% | **9.2%** | - | 4.8% |
| **Buses** | 0 | 9 | 0 | 0 | **9** | - | 0 | 8 | 0 | 0 | **8** | - | 0 | 0 | 0 | 0 | **0** | - | 0 | 0 | 1 | 0 | **1** | - | 18 |
| **% Buses** | 0% | 0.9% | 0% | 0% | **0.9%** | - | 0% | 0.8% | 0% | 0% | **0.8%** | - | 0% | 0% | 0% | 0% | **0%** | - | 0% | 0% | 1.3% | 0% | **1.0%** | - | 0.8% |
| **Bicycles on Road** | 1 | 0 | 0 | 0 | **1** | - | 0 | 0 | 0 | 0 | **0** | - | 0 | 0 | 0 | 0 | **0** | - | 0 | 0 | 0 | 0 | **0** | - | 1 |
| **% Bicycles on Road** | 100% | 0% | 0% | 0% | **0.1%** | - | 0% | 0% | 0% | 0% | **0%** | - | 0% | 0% | 0% | 0% | **0%** | - | 0% | 0% | 0% | 0% | **0%** | - | 0% |
| Pedestrians | - | - | - | - | - | 1 | - | - | - | - | - | 0 | - | - | - | - | - | 1 | - | - | - | - | - | 0 | |
| % Pedestrians | - | - | - | - | - | 100% | - | - | - | - | - | - | - | - | - | - | - | 100% | - | - | - | - | - | - | - |
| Bicycles on Crosswalk | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | - | 0% | - | - | - | - | - | - | - | - | - | - | - | 0% | - | - | - | - | - | - | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

## 6. Cornelia and Oriskany - TMC

Wed Jul 18, 2018
AM Peak (7:30AM - 8:30AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549084, Location: 43.10452, -75.234856, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US






## 6. Cornelia and Oriskany - TMC

Wed Jul 18, 2018
Forced Peak (7:45AM - 8:45AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549084, Location: 43.10452, -75.234856, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg<br>Direction | Oriskany St.<br>Eastbound | | | | | | Oriskany St.<br>Westbound | | | | | | Cornelia St.<br>Northbound | | | | | | Whitesboro St.<br>Southbound | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | L | T | R | U | App | Ped* | L | T | R | U | App | Ped* | L | T | R | U | App | Ped* | L | T | R | U | App | Ped* | Int |
| 2018-07-18 7:45AM | 0 | 268 | 12 | 0 | **251** | 0 | 0 | 283 | 0 | 0 | **257** | 0 | 7 | 8 | 0 | 0 | **48** | 0 | 0 | 6 | 30 | 0 | **70** | 0 | **043** |
| 8:00AM | 0 | 251 | 11 | 0 | **202** | 1 | 0 | 198 | 0 | 0 | **465** | 0 | 6 | 1 | 0 | 0 | **9** | 0 | 0 | 6 | 24 | 0 | **71** | 0 | **369** |
| 8:15AM | 1 | 233 | 17 | 0 | **284** | 0 | 0 | 228 | 1 | 0 | **226** | 0 | 11 | 2 | 1 | 0 | **43** | 1 | 0 | 4 | 11 | 0 | **48** | 0 | **816** |
| 8:30AM | 0 | 212 | 11 | 0 | **227** | 0 | 0 | 197 | 0 | 0 | **469** | 5 | 4 | 5 | 0 | 0 | **6** | 3 | 0 | 2 | 17 | 0 | **46** | 0 | **335** |
| **Total** | 1 | 964 | 51 | 0 | **4140** | 1 | 0 | 906 | 1 | 0 | **619** | 5 | 28 | 16 | 1 | 0 | **38** | 4 | 0 | 18 | 82 | 0 | **411** | 0 | **2105** |
| **% Approach** | 0.1% | 94.9% | 5.0% | 0% | - | - | 0% | 99.9% | 0.1% | 0% | - | - | 62.2% | 35.6% | 2.2% | 0% | - | - | 0% | 18.0% | 82.0% | 0% | - | - | - |
| **% Total** | 0% | 46.6% | 2.5% | 0% | **36.4%** | - | 0% | 43.8% | 0% | 0% | **37.6%** | - | 1.4% | 0.8% | 0% | 0% | **2.2%** | - | 0% | 0.9% | 4.0% | 0% | **3.5%** | - | - |
| **PHF** | 0.250 | 0.899 | 0.750 | - | **1.619** | - | - | 0.800 | 0.250 | - | **1.514** | - | 0.636 | 0.500 | 0.250 | - | **1.981** | - | - | 0.750 | 0.683 | - | **1.063** | - | 0.842 |
| **Lights** | 0 | 906 | 51 | 0 | **689** | - | 0 | 859 | 1 | 0 | **501** | - | 28 | 15 | 1 | 0 | **33** | - | 0 | 17 | 72 | 0 | **56** | - | 1950 |
| **% Lights** | 0% | 94.0% | 100% | 0% | **63.2%** | - | 0% | 94.8% | 100% | 0% | **63.5%** | - | 100% | 93.8% | 100% | 0% | **69.5%** | - | 0% | 94.4% | 87.8% | 0% | **56.1%** | - | 94.3% |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 48 | 0 | 0 | **35** | - | 0 | 43 | 0 | 0 | **37** | - | 0 | 1 | 0 | 0 | **4** | - | 0 | 1 | 9 | 0 | **41** | - | 102 |
| **% Articulated Trucks and Single-Unit Trucks** | 0% | 5.0% | 0% | 0% | **3.9%** | - | 0% | 4.7% | 0% | 0% | **3.9%** | - | 0% | 6.3% | 0% | 0% | **2.2%** | - | 0% | 5.6% | 11.0% | 0% | **41.1%** | - | 4.9% |
| **Buses** | 0 | 10 | 0 | 0 | **41** | - | 0 | 4 | 0 | 0 | **3** | - | 0 | 0 | 0 | 0 | **1** | - | 0 | 0 | 1 | 0 | **4** | - | 15 |
| **% Buses** | 0% | 1.0% | 0% | 0% | **4.1%** | - | 0% | 0.4% | 0% | 0% | **1.3%** | - | 0% | 0% | 0% | 0% | **1%** | - | 0% | 0% | 1.2% | 0% | **4.1%** | - | 0.7% |
| **Bicycles on Road** | 1 | 0 | 0 | 0 | **4** | - | 0 | 0 | 0 | 0 | **1** | - | 0 | 0 | 0 | 0 | **1** | - | 0 | 0 | 0 | 0 | **1** | - | 1 |
| **% Bicycles on Road** | 100% | 0% | 0% | 0% | **1.4%** | - | 0% | 0% | 0% | 0% | **1%** | - | 0% | 0% | 0% | 0% | **1%** | - | 0% | 0% | 0% | 0% | **1%** | - | 0% |
| Pedestrians | - | - | - | - | - | 1 | - | - | - | - | - | 5 | - | - | - | - | - | 4 | - | - | - | - | - | 0 | |
| % Pedestrians | - | - | - | - | - | 100% | - | - | - | - | - | 100% | - | - | - | - | - | 100% | - | - | - | - | - | - | - |
| Bicycles on Crosswalk | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | - | 0% | - | - | - | - | - | 0% | - | - | - | - | - | 0% | - | - | - | - | - | - | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

**6. Cornelia and Oriskany - TMC**
Wed Jul 18, 2018
FLnged t eh( 7AM94 P 68M94 P )
4 ll Clhaaea 7s ir cTa, 4 nTgulhTed k nug(a hSd UiSr le6BSiTk nug(a, y uaea, t edeaTnihSa, y igoglea LS RLhd, y igoglea LS CnLaawhl( )
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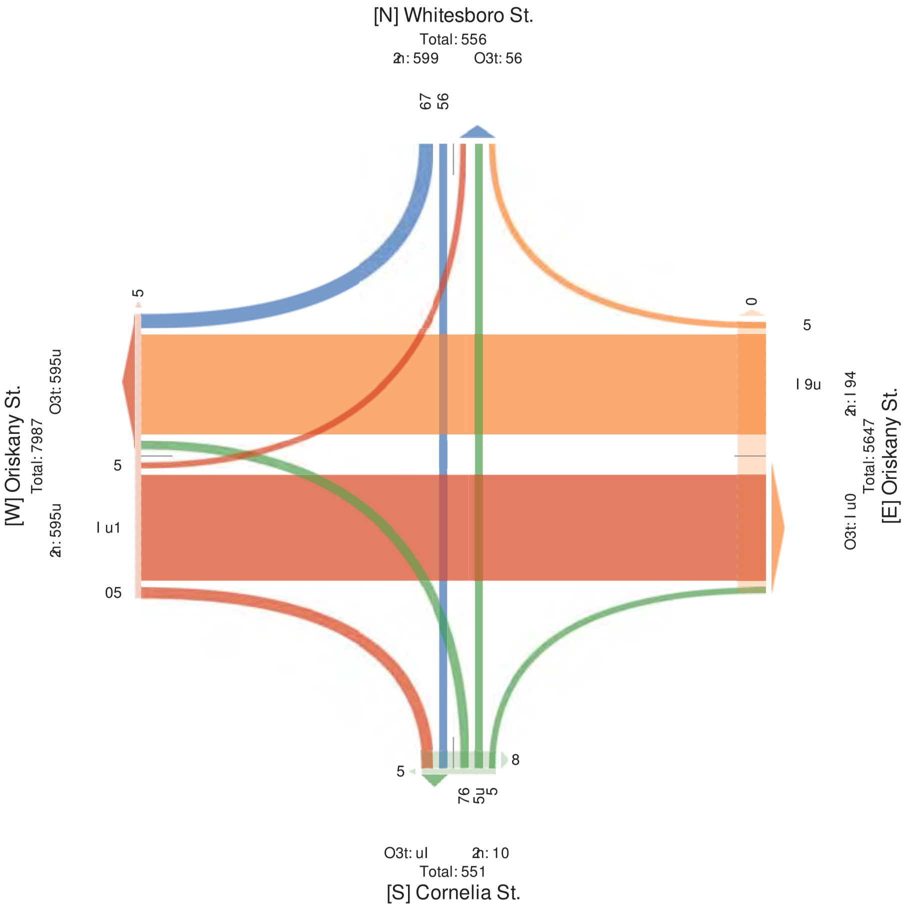




**6. Cornelia and Oriskany - TMC**
Wed Jul 18, 2018
PM Peak (4PM - 5PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549084, Location: 43.10452, -75.234856, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Oriskany St. | | | | | | Oriskany St. | | | | | | Cornelia St. | | | | | | Whitesboro St. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Eastbound | | | | | | Westbound | | | | | | Northbound | | | | | | Southbound | | | | | | |
| Time | L | T | R | U | App | Ped* | L | T | R | U | App | Ped* | L | T | R | U | App | Ped* | L | T | R | U | App | Ped* | Int |
| 2018-07-18 4:00PM | 0 | 240 | 5 | 0 | **251** | 0 | 0 | 280 | 1 | 0 | **274** | 4 | 26 | 3 | 3 | 0 | **82** | 0 | 0 | 6 | 66 | 0 | **02** | 1 | **386** |
| 4:15PM | 0 | 287 | 4 | 0 | **294** | 0 | 0 | 236 | 0 | 0 | **283** | 0 | 14 | 4 | 5 | 0 | **28** | 1 | 0 | 2 | 36 | 0 | **87** | 0 | **177** |
| 4:30PM | 0 | 273 | 3 | 0 | **203** | 0 | 0 | 312 | 0 | 0 | **842** | 0 | 20 | 6 | 8 | 0 | **85** | 0 | 0 | 3 | 58 | 0 | **34** | 0 | **378** |
| 4:45PM | 0 | 249 | 7 | 0 | **213** | 0 | 0 | 248 | 1 | 0 | **259** | 1 | 13 | 2 | 1 | 0 | **43** | 1 | 0 | 4 | 19 | 0 | **28** | 0 | **155** |
| **Total** | 0 | 1049 | 19 | 0 | **4637** | 0 | 0 | 1076 | 2 | 0 | **4607** | 5 | 73 | 15 | 17 | 0 | **461** | 2 | 0 | 15 | 179 | 0 | **495** | 1 | **2551** |
| **% Approach** | 0% | 98.2% | 1.8% | 0% | - | - | 0% | 99.8% | 0.2% | 0% | - | - | 69.5% | 14.3% | 16.2% | 0% | - | - | 0% | 7.7% | 92.3% | 0% | - | - | - |
| **% Total** | 0% | 42.9% | 0.8% | 0% | **58.0%** | - | 0% | 44.0% | 0.1% | 0% | **55.4%** | - | 3.0% | 0.6% | 0.7% | 0% | **5.8%** | - | 0% | 0.6% | 7.3% | 0% | **0.9%** | - | - |
| **PHF** | - | 0.914 | 0.679 | - | **6.947** | - | - | 0.862 | 0.500 | - | **6.735** | - | 0.702 | 0.625 | 0.531 | - | **6.002** | - | - | 0.625 | 0.678 | - | **6.305** | - | 0.895 |
| **Lights** | 0 | 1023 | 18 | 0 | **4654** | - | 0 | 1046 | 2 | 0 | **4657** | - | 71 | 15 | 17 | 0 | **468** | - | 0 | 15 | 178 | 0 | **498** | - | 2385 |
| **% Lights** | 0% | 97.5% | 94.7% | 0% | **90.1%** | - | 0% | 97.2% | 100% | 0% | **90.2%** | - | 97.3% | 100% | 100% | 0% | **97.4%** | - | 0% | 100% | 99.4% | 0% | **99.1%** | - | 97.5% |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 20 | 1 | 0 | **24** | - | 0 | 29 | 0 | 0 | **29** | - | 2 | 0 | 0 | 0 | **2** | - | 0 | 0 | 0 | 0 | **6** | - | 52 |
| **% Articulated Trucks and Single-Unit Trucks** | 0% | 1.9% | 5.3% | 0% | **2.6%** | - | 0% | 2.7% | 0% | 0% | **2.0%** | - | 2.7% | 0% | 0% | 0% | **4.9%** | - | 0% | 0% | 0% | 0% | **6%** | - | 2.1% |
| **Buses** | 0 | 6 | 0 | 0 | **3** | - | 0 | 1 | 0 | 0 | **4** | - | 0 | 0 | 0 | 0 | **6** | - | 0 | 0 | 1 | 0 | **4** | - | 8 |
| **% Buses** | 0% | 0.6% | 0% | 0% | **6.3%** | - | 0% | 0.1% | 0% | 0% | **6.4%** | - | 0% | 0% | 0% | 0% | **6%** | - | 0% | 0% | 0.6% | 0% | **6.1%** | - | 0.3% |
| **Bicycles on Road** | 0 | 0 | 0 | 0 | **6** | - | 0 | 0 | 0 | 0 | **6** | - | 0 | 0 | 0 | 0 | **6** | - | 0 | 0 | 0 | 0 | **6** | - | 0 |
| **% Bicycles on Road** | 0% | 0% | 0% | 0% | **6%** | - | 0% | 0% | 0% | 0% | **6%** | - | 0% | 0% | 0% | 0% | **6%** | - | 0% | 0% | 0% | 0% | **6%** | - | 0% |
| Pedestrians | - | - | - | - | - | 0 | - | - | - | - | - | 3 | - | - | - | - | - | 1 | - | - | - | - | - | 1 | |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | 60.0% | - | - | - | - | - | 50.0% | - | - | - | - | - | 100% | - |
| Bicycles on Crosswalk | - | - | - | - | - | 0 | - | - | - | - | - | 2 | - | - | - | - | - | 1 | - | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | 40.0% | - | - | - | - | - | 50.0% | - | - | - | - | - | 0% | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

**6. Cornelia and Oriskany - TMC**
Wed Jul 18, 2018
PM Peak (4PM - 5PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549084, Location: 43.10452, -75.234856, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
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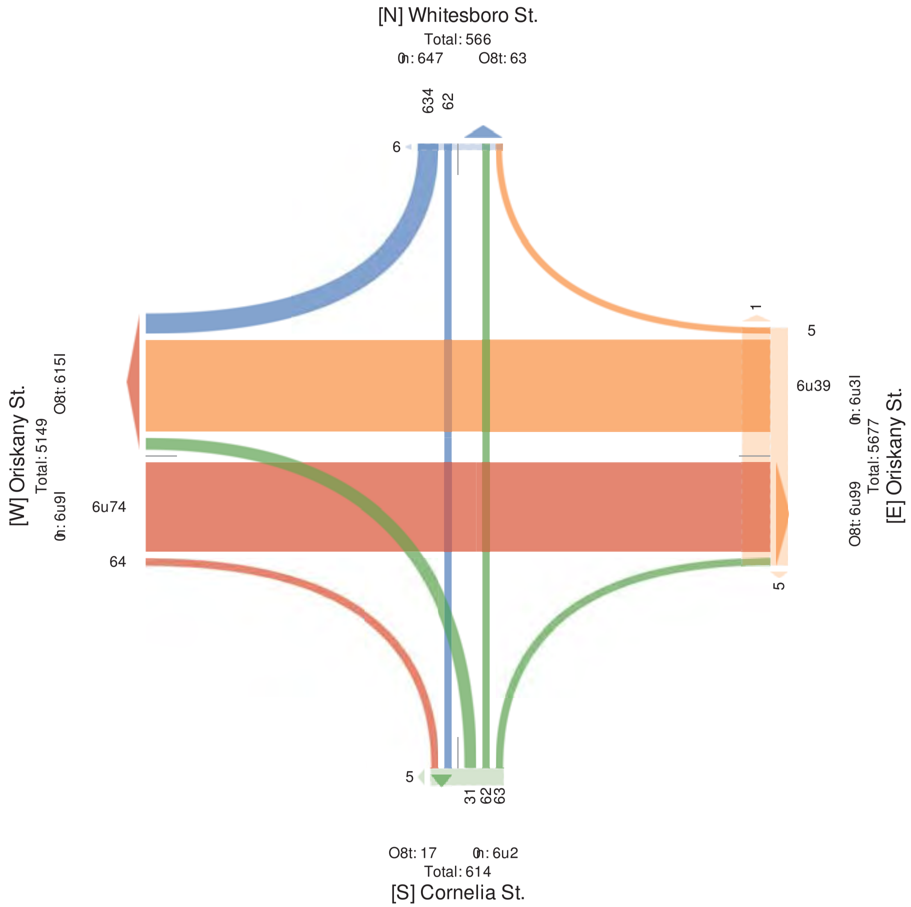




Revised A - 34

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Utica, NY
Cornelia/Lafayette
Wednesday, July 18, 2018
Location: 43.103557, -75.23523

Count Name: 7. Cornelia and Lafayette
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 1

## Turning Movement Data

| | Cornelia St. Southbound | | | | | | | Lafayette St. Westbound | | | | | | | Cornelia St. Northbound | | | | | | | Lafayette St. Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Int. Total |
| 7:00 AM | 0 | 0 | 1 | 2 | 0 | 1 | 3 | 1 | 0 | 17 | 2 | 0 | 1 | 20 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 18 | 1 | 0 | 0 | 19 | 44 |
| 7:15 AM | 2 | 1 | 6 | 3 | 0 | 0 | 12 | 1 | 0 | 22 | 4 | 0 | 0 | 27 | 0 | 1 | 2 | 1 | 0 | 0 | 4 | 1 | 0 | 14 | 2 | 0 | 0 | 17 | 60 |
| 7:30 AM | 0 | 3 | 6 | 6 | 0 | 0 | 15 | 1 | 0 | 25 | 7 | 0 | 1 | 33 | 1 | 0 | 4 | 0 | 0 | 0 | 5 | 2 | 1 | 28 | 1 | 0 | 0 | 32 | 85 |
| 7:45 AM | 2 | 3 | 8 | 4 | 0 | 0 | 17 | 5 | 2 | 36 | 7 | 1 | 0 | 51 | 1 | 3 | 4 | 3 | 0 | 0 | 11 | 3 | 2 | 34 | 2 | 0 | 1 | 41 | 120 |
| Hourly Total | 4 | 7 | 21 | 15 | 0 | 1 | 47 | 8 | 2 | 100 | 20 | 1 | 2 | 131 | 2 | 4 | 12 | 4 | 0 | 0 | 22 | 6 | 3 | 94 | 6 | 0 | 1 | 109 | 309 |
| 8:00 AM | 3 | 1 | 14 | 1 | 0 | 0 | 19 | 3 | 0 | 27 | 15 | 0 | 0 | 45 | 3 | 0 | 5 | 1 | 0 | 0 | 9 | 3 | 3 | 30 | 0 | 0 | 2 | 36 | 109 |
| 8:15 AM | 2 | 0 | 16 | 5 | 0 | 0 | 23 | 5 | 0 | 19 | 14 | 0 | 1 | 38 | 2 | 2 | 7 | 2 | 0 | 0 | 13 | 9 | 1 | 43 | 1 | 0 | 1 | 54 | 128 |
| 8:30 AM | 1 | 1 | 7 | 2 | 0 | 1 | 11 | 2 | 0 | 29 | 4 | 0 | 2 | 35 | 2 | 0 | 6 | 2 | 0 | 0 | 10 | 2 | 0 | 37 | 4 | 0 | 2 | 43 | 99 |
| 8:45 AM | 1 | 0 | 8 | 7 | 0 | 2 | 16 | 3 | 1 | 34 | 6 | 0 | 0 | 44 | 4 | 0 | 13 | 3 | 0 | 0 | 20 | 3 | 1 | 24 | 6 | 0 | 0 | 34 | 114 |
| Hourly Total | 7 | 2 | 45 | 15 | 0 | 3 | 69 | 13 | 1 | 109 | 39 | 0 | 3 | 162 | 11 | 2 | 31 | 8 | 0 | 0 | 52 | 17 | 5 | 134 | 11 | 0 | 5 | 167 | 450 |
| 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:00 PM | 1 | 1 | 8 | 2 | 0 | 0 | 12 | 10 | 2 | 60 | 3 | 0 | 1 | 75 | 4 | 1 | 12 | 6 | 0 | 1 | 23 | 1 | 2 | 19 | 2 | 0 | 0 | 24 | 134 |
| 4:15 PM | 2 | 1 | 2 | 0 | 0 | 1 | 5 | 4 | 0 | 64 | 6 | 0 | 0 | 74 | 2 | 1 | 20 | 5 | 0 | 1 | 28 | 3 | 1 | 23 | 4 | 0 | 0 | 31 | 138 |
| 4:30 PM | 2 | 2 | 3 | 1 | 0 | 0 | 8 | 2 | 1 | 59 | 2 | 0 | 0 | 64 | 9 | 1 | 27 | 6 | 0 | 1 | 43 | 1 | 0 | 25 | 1 | 0 | 0 | 27 | 142 |
| 4:45 PM | 2 | 3 | 3 | 2 | 0 | 1 | 10 | 5 | 1 | 44 | 5 | 0 | 0 | 55 | 2 | 0 | 13 | 8 | 0 | 0 | 23 | 3 | 0 | 31 | 0 | 0 | 0 | 34 | 122 |
| Hourly Total | 7 | 7 | 16 | 5 | 0 | 2 | 35 | 21 | 4 | 227 | 16 | 0 | 1 | 268 | 17 | 3 | 72 | 25 | 0 | 3 | 117 | 8 | 3 | 98 | 7 | 0 | 0 | 116 | 536 |
| 5:00 PM | 3 | 0 | 6 | 1 | 0 | 0 | 10 | 8 | 0 | 38 | 9 | 0 | 0 | 55 | 4 | 0 | 11 | 4 | 0 | 0 | 19 | 1 | 0 | 16 | 3 | 0 | 1 | 20 | 104 |
| 5:15 PM | 0 | 0 | 8 | 1 | 0 | 0 | 9 | 1 | 0 | 29 | 4 | 0 | 0 | 34 | 3 | 1 | 8 | 2 | 0 | 0 | 14 | 1 | 1 | 17 | 1 | 0 | 2 | 20 | 77 |
| 5:30 PM | 2 | 0 | 2 | 2 | 0 | 0 | 6 | 2 | 0 | 32 | 3 | 0 | 1 | 37 | 1 | 0 | 6 | 0 | 0 | 0 | 7 | 2 | 0 | 19 | 2 | 0 | 0 | 23 | 73 |
| 5:45 PM | 3 | 0 | 1 | 0 | 0 | 0 | 4 | 1 | 0 | 16 | 1 | 0 | 0 | 18 | 0 | 2 | 6 | 1 | 0 | 0 | 9 | 5 | 1 | 12 | 1 | 0 | 1 | 19 | 50 |
| Hourly Total | 8 | 0 | 17 | 4 | 0 | 0 | 29 | 12 | 0 | 115 | 17 | 0 | 1 | 144 | 8 | 3 | 31 | 7 | 0 | 0 | 49 | 9 | 2 | 64 | 7 | 0 | 4 | 82 | 304 |
| 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Grand Total | 26 | 16 | 99 | 39 | 0 | 6 | 180 | 54 | 7 | 551 | 92 | 1 | 7 | 705 | 38 | 12 | 146 | 44 | 0 | 3 | 240 | 40 | 13 | 390 | 31 | 0 | 10 | 474 | 1599 |
| Approach % | 14.4 | 8.9 | 55.0 | 21.7 | 0.0 | - | - | 7.7 | 1.0 | 78.2 | 13.0 | 0.1 | - | - | 15.8 | 5.0 | 60.8 | 18.3 | 0.0 | - | - | 8.4 | 2.7 | 82.3 | 6.5 | 0.0 | - | - | - |
| Total % | 1.6 | 1.0 | 6.2 | 2.4 | 0.0 | - | 11.3 | 3.4 | 0.4 | 34.5 | 5.8 | 0.1 | - | 44.1 | 2.4 | 0.8 | 9.1 | 2.8 | 0.0 | - | 15.0 | 2.5 | 0.8 | 24.4 | 1.9 | 0.0 | - | 29.6 | - |
| Lights | 25 | 16 | 97 | 38 | 0 | - | 176 | 53 | 7 | 532 | 88 | 1 | - | 681 | 36 | 12 | 145 | 43 | 0 | - | 236 | 39 | 13 | 381 | 31 | 0 | - | 464 | 1557 |
| % Lights | 96.2 | 100.0 | 98.0 | 97.4 | - | - | 97.8 | 98.1 | 100.0 | 96.6 | 95.7 | 100.0 | - | 96.6 | 94.7 | 100.0 | 99.3 | 97.7 | - | - | 98.3 | 97.5 | 100.0 | 97.7 | 100.0 | - | - | 97.9 | 97.4 |
| Buses | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 7 | 1 | 0 | - | 8 | 0 | 0 | 0 | 1 | 0 | - | 1 | 1 | 0 | 2 | 0 | 0 | - | 3 | 12 |
| % Buses | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 1.3 | 1.1 | 0.0 | - | 1.1 | 0.0 | 0.0 | 0.0 | 2.3 | - | - | 0.4 | 2.5 | 0.0 | 0.5 | 0.0 | - | - | 0.6 | 0.8 |
| Trucks | 1 | 0 | 2 | 1 | 0 | - | 4 | 1 | 0 | 10 | 2 | 0 | - | 13 | 2 | 0 | 1 | 0 | 0 | - | 3 | 0 | 0 | 2 | 0 | 0 | - | 2 | 22 |
| % Trucks | 3.8 | 0.0 | 2.0 | 2.6 | - | - | 2.2 | 1.9 | 0.0 | 1.8 | 2.2 | 0.0 | - | 1.8 | 5.3 | 0.0 | 0.7 | 0.0 | - | - | 1.3 | 0.0 | 0.0 | 0.5 | 0.0 | - | - | 0.4 | 1.4 |
| Bicycles on Road | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 2 | 1 | 0 | - | 3 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 5 | 0 | 0 | - | 5 | 8 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.4 | 1.1 | 0.0 | - | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 1.3 | 0.0 | - | - | 1.1 | 0.5 |
| Bicycles on Crosswalk | - | - | - | - | - | 3 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | 50.0 | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 0.0 | - | - |
| Pedestrians | - | - | - | - | - | 3 | - | - | - | - | - | - | 7 | - | - | - | - | - | - | 3 | - | - | - | - | - | - | 10 | - | - |
| % Pedestrians | - | - | - | - | - | 50.0 | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 100.0 | - | - |

Utica, NY
Cornelia/Lafayette
Wednesday, July 18, 2018
Location: 43.103557, -75.23523

TRI-STATE TRAFFIC DATA
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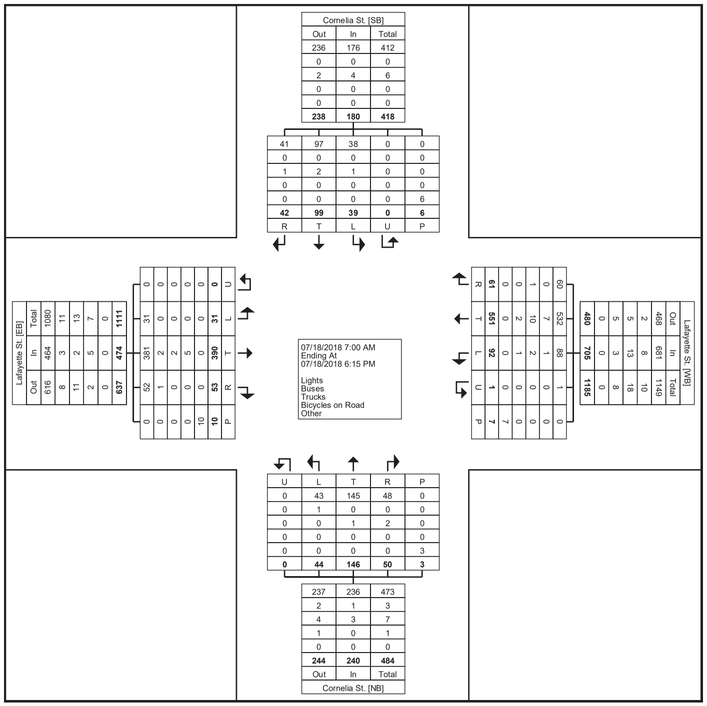
Count Name: 7. Cornelia and Lafayette
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 2




Turning Movement Data Plot

Utica, NY
Cornelia/Lafayette
Wednesday, July 18, 2018
Location: 43.103557, -75.23523

TRI-STATE TRAFFIC DATA
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610-466-1469 jvetterlein@tstdata.com
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Count Name: 7. Cornelia and Lafayette
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 3

## Turning Movement Peak Hour Data (7:45 AM)

| | Cornelia St. Southbound | | | | | | | Lafayette St. Westbound | | | | | | | Cornelia St. Northbound | | | | | | | Lafayette St. Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Int. Total |
| 7:45 AM | 2 | 3 | 8 | 4 | 0 | 0 | 17 | 5 | 2 | 36 | 7 | 1 | 0 | 51 | 1 | 3 | 4 | 3 | 0 | 0 | 11 | 3 | 2 | 34 | 2 | 0 | 1 | 41 | 120 |
| 8:00 AM | 3 | 1 | 14 | 1 | 0 | 0 | 19 | 3 | 0 | 27 | 15 | 0 | 0 | 45 | 3 | 0 | 5 | 1 | 0 | 0 | 9 | 3 | 3 | 30 | 0 | 0 | 2 | 36 | 109 |
| 8:15 AM | 2 | 0 | 16 | 5 | 0 | 0 | 23 | 5 | 0 | 19 | 14 | 0 | 1 | 38 | 2 | 2 | 7 | 2 | 0 | 0 | 13 | 9 | 1 | 43 | 1 | 0 | 1 | 54 | 128 |
| 8:30 AM | 1 | 1 | 7 | 2 | 0 | 1 | 11 | 2 | 0 | 29 | 4 | 0 | 2 | 35 | 2 | 0 | 6 | 2 | 0 | 0 | 10 | 2 | 0 | 37 | 4 | 0 | 2 | 43 | 99 |
| Total | 8 | 5 | 45 | 12 | 0 | 1 | 70 | 15 | 2 | 111 | 40 | 1 | 3 | 169 | 8 | 5 | 22 | 8 | 0 | 0 | 43 | 17 | 6 | 144 | 7 | 0 | 6 | 174 | 456 |
| Approach % | 11.4 | 7.1 | 64.3 | 17.1 | 0.0 | - | - | 8.9 | 1.2 | 65.7 | 23.7 | 0.6 | - | - | 18.6 | 11.6 | 51.2 | 18.6 | 0.0 | - | - | 9.8 | 3.4 | 82.8 | 4.0 | 0.0 | - | - | - |
| Total % | 1.8 | 1.1 | 9.9 | 2.6 | 0.0 | - | 15.4 | 3.3 | 0.4 | 24.3 | 8.8 | 0.2 | - | 37.1 | 1.8 | 1.1 | 4.8 | 1.8 | 0.0 | - | 9.4 | 3.7 | 1.3 | 31.6 | 1.5 | 0.0 | - | 38.2 | - |
| PHF | 0.667 | 0.417 | 0.703 | 0.600 | 0.000 | - | 0.761 | 0.750 | 0.250 | 0.771 | 0.667 | 0.250 | - | 0.828 | 0.667 | 0.417 | 0.786 | 0.667 | 0.000 | - | 0.827 | 0.472 | 0.500 | 0.837 | 0.438 | 0.000 | - | 0.806 | 0.891 |
| Lights | 8 | 5 | 44 | 12 | 0 | - | 69 | 15 | 2 | 105 | 40 | 1 | - | 163 | 8 | 5 | 21 | 8 | 0 | - | 42 | 17 | 6 | 140 | 7 | 0 | - | 170 | 444 |
| % Lights | 100.0 | 100.0 | 97.8 | 100.0 | - | - | 98.6 | 100.0 | 100.0 | 94.6 | 100.0 | 100.0 | - | 96.4 | 100.0 | 100.0 | 95.5 | 100.0 | - | - | 97.7 | 100.0 | 100.0 | 97.2 | 100.0 | - | - | 97.7 | 97.4 |
| Buses | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 3 | 0 | 0 | - | 3 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 1 | 0 | 0 | - | 1 | 4 |
| % Buses | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 2.7 | 0.0 | 0.0 | - | 1.8 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | - | - | 0.6 | 0.9 |
| Trucks | 0 | 0 | 1 | 0 | 0 | - | 1 | 0 | 0 | 3 | 0 | 0 | - | 3 | 0 | 0 | 1 | 0 | 0 | - | 1 | 0 | 0 | 0 | 0 | 0 | - | 0 | 5 |
| % Trucks | 0.0 | 0.0 | 2.2 | 0.0 | - | - | 1.4 | 0.0 | 0.0 | 2.7 | 0.0 | 0.0 | - | 1.8 | 0.0 | 0.0 | 4.5 | 0.0 | - | - | 2.3 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 1.1 |
| Bicycles on Road | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 3 | 0 | 0 | - | 3 | 3 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 2.1 | 0.0 | - | - | 1.7 | 0.7 |
| Bicycles on Crosswalk | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.0 | - | - |
| Pedestrians | - | - | - | - | - | 1 | - | - | - | - | - | - | 3 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 6 | - | - |
| % Pedestrians | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - |

Utica, NY
Cornelia/Lafayette
Wednesday, July 18, 2018
Location: 43.103557, -75.23523

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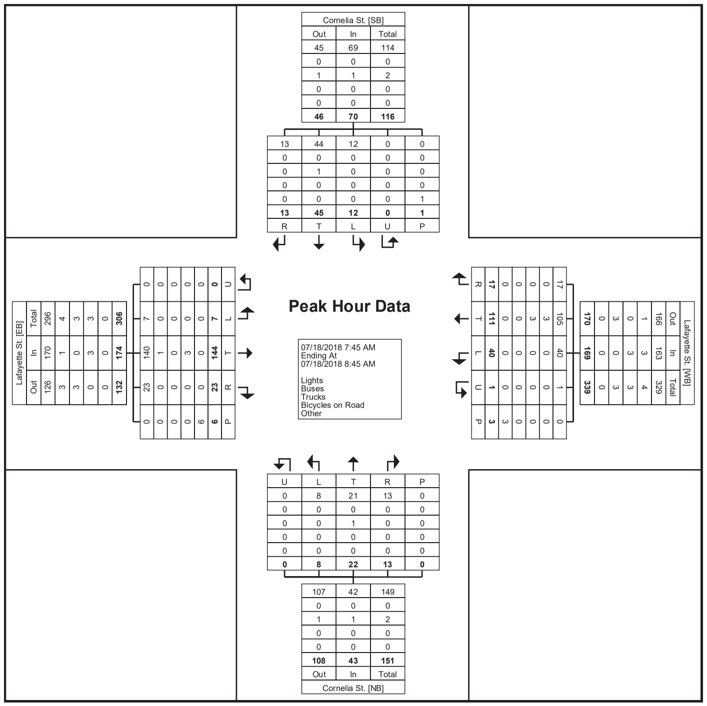
Count Name: 7. Cornelia and Lafayette
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 4




Turning Movement Peak Hour Data Plot (7:45 AM)


Utica, NY
Cornelia/Lafayette
Wednesday, July 18, 2018
Location: 43.103557, -75.23523

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Count Name: 7. Cornelia and Lafayette
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 5

## Turning Movement Peak Hour Data (4:00 PM)

| Start Time | Cornelia St. Southbound Right | | | | | | | Lafayette St. Westbound | | | | | | | Cornelia St. Northbound | | | | | | | Lafayette St. Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Int. Total |
| 4:00 PM | 1 | 1 | 8 | 2 | 0 | 0 | 12 | 10 | 2 | 60 | 3 | 0 | 1 | 75 | 4 | 1 | 12 | 6 | 0 | 1 | 23 | 1 | 2 | 19 | 2 | 0 | 0 | 24 | 134 |
| 4:15 PM | 2 | 1 | 2 | 0 | 0 | 1 | 5 | 4 | 0 | 64 | 6 | 0 | 0 | 74 | 2 | 1 | 20 | 5 | 0 | 1 | 28 | 3 | 1 | 23 | 4 | 0 | 0 | 31 | 138 |
| 4:30 PM | 2 | 2 | 3 | 1 | 0 | 0 | 8 | 2 | 1 | 59 | 2 | 0 | 0 | 64 | 9 | 1 | 27 | 6 | 0 | 1 | 43 | 1 | 0 | 25 | 1 | 0 | 0 | 27 | 142 |
| 4:45 PM | 2 | 3 | 3 | 2 | 0 | 1 | 10 | 5 | 1 | 44 | 5 | 0 | 0 | 55 | 2 | 0 | 13 | 8 | 0 | 0 | 23 | 3 | 0 | 31 | 0 | 0 | 0 | 34 | 122 |
| Total | 7 | 7 | 16 | 5 | 0 | 2 | 35 | 21 | 4 | 227 | 16 | 0 | 1 | 268 | 17 | 3 | 72 | 25 | 0 | 3 | 117 | 8 | 3 | 98 | 7 | 0 | 0 | 116 | 536 |
| Approach % | 20.0 | 20.0 | 45.7 | 14.3 | 0.0 | - | - | 7.8 | 1.5 | 84.7 | 6.0 | 0.0 | - | - | 14.5 | 2.6 | 61.5 | 21.4 | 0.0 | - | - | 6.9 | 2.6 | 84.5 | 6.0 | 0.0 | - | - | - |
| Total % | 1.3 | 1.3 | 3.0 | 0.9 | 0.0 | - | 6.5 | 3.9 | 0.7 | 42.4 | 3.0 | 0.0 | - | 50.0 | 3.2 | 0.6 | 13.4 | 4.7 | 0.0 | - | 21.8 | 1.5 | 0.6 | 18.3 | 1.3 | 0.0 | - | 21.6 | - |
| PHF | 0.875 | 0.583 | 0.500 | 0.625 | 0.000 | - | 0.729 | 0.525 | 0.500 | 0.887 | 0.667 | 0.000 | - | 0.893 | 0.472 | 0.750 | 0.667 | 0.781 | 0.000 | - | 0.680 | 0.667 | 0.375 | 0.790 | 0.438 | 0.000 | - | 0.853 | 0.944 |
| Lights | 7 | 7 | 16 | 5 | 0 | - | 35 | 20 | 4 | 222 | 15 | 0 | - | 261 | 15 | 3 | 72 | 24 | 0 | - | 114 | 7 | 3 | 95 | 7 | 0 | - | 112 | 522 |
| % Lights | 100.0 | 100.0 | 100.0 | 100.0 | - | - | 100.0 | 95.2 | 100.0 | 97.8 | 93.8 | - | - | 97.4 | 88.2 | 100.0 | 100.0 | 96.0 | - | - | 97.4 | 87.5 | 100.0 | 96.9 | 100.0 | - | - | 96.6 | 97.4 |
| Buses | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 1 | 0 | 0 | - | 1 | 0 | 0 | 0 | 1 | 0 | - | 1 | 1 | 0 | 0 | 0 | 0 | - | 1 | 3 |
| % Buses | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | - | - | 0.4 | 0.0 | 0.0 | 0.0 | 4.0 | - | - | 0.9 | 12.5 | 0.0 | 0.0 | 0.0 | - | - | 0.9 | 0.6 |
| Trucks | 0 | 0 | 0 | 0 | 0 | - | 0 | 1 | 0 | 4 | 1 | 0 | - | 6 | 2 | 0 | 0 | 0 | 0 | - | 2 | 0 | 0 | 1 | 0 | 0 | - | 1 | 9 |
| % Trucks | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 4.8 | 0.0 | 1.8 | 6.3 | - | - | 2.2 | 11.8 | 0.0 | 0.0 | 0.0 | - | - | 1.7 | 0.0 | 0.0 | 1.0 | 0.0 | - | - | 0.9 | 1.7 |
| Bicycles on Road | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 2 | 0 | 0 | - | 2 | 2 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 2.0 | 0.0 | - | - | 1.7 | 0.4 |
| Bicycles on Crosswalk | - | - | - | - | - | 2 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | - | - | 0 | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 3 | - | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | - | - | - |

Utica, NY
Cornelia/Lafayette
Wednesday, July 18, 2018
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Utica, NY
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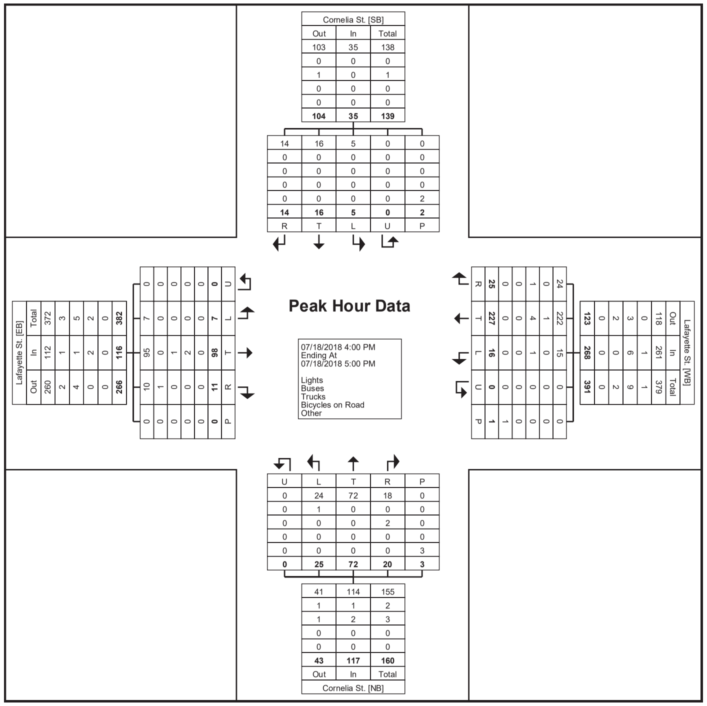
Page No: 7

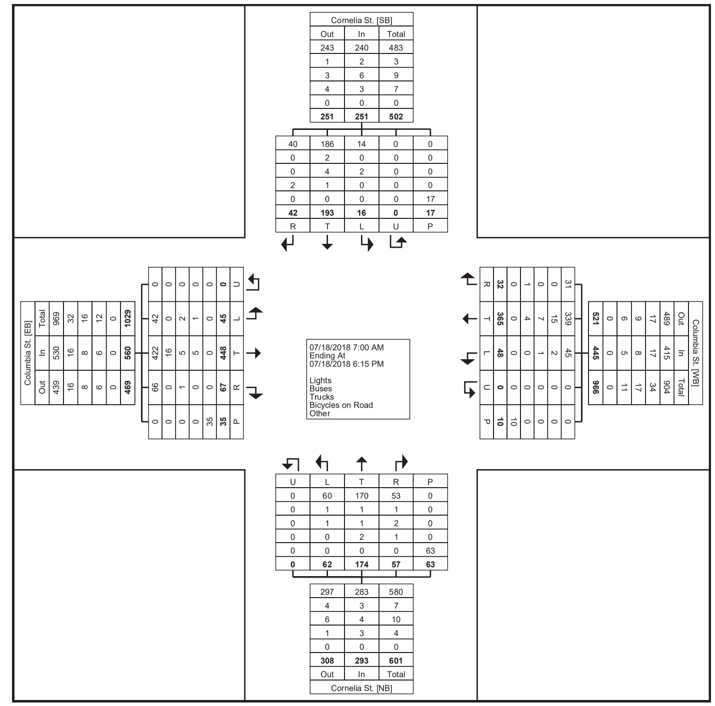



Turning Movement Peak Hour Data Plot (4:00 PM)

# Turning Movement Data

| Start Time | Cornelia St. Southbound Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Columbia St. Westbound Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Cornelia St. Northbound Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Columbia St. Eastbound Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7:00 AM | 1 | 1 | 3 | 1 | 0 | 1 | 6 | 0 | 0 | 11 | 0 | 0 | 0 | 11 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 12 | 0 | 0 | 0 | 12 | 30 |
| 7:15 AM | 1 | 0 | 10 | 0 | 0 | 0 | 11 | 0 | 0 | 8 | 1 | 0 | 0 | 9 | 1 | 0 | 3 | 0 | 0 | 1 | 4 | 3 | 0 | 20 | 1 | 0 | 0 | 24 | 48 |
| 7:30 AM | 0 | 0 | 10 | 2 | 0 | 2 | 12 | 1 | 0 | 11 | 3 | 0 | 2 | 15 | 0 | 0 | 6 | 4 | 0 | 3 | 10 | 5 | 1 | 19 | 0 | 0 | 1 | 25 | 62 |
| 7:45 AM | 2 | 1 | 18 | 1 | 0 | 1 | 22 | 1 | 1 | 18 | 2 | 0 | 1 | 22 | 1 | 0 | 9 | 3 | 0 | 0 | 13 | 2 | 5 | 33 | 1 | 0 | 1 | 41 | 98 |
| Hourly Total | 4 | 2 | 41 | 4 | 0 | 4 | 51 | 2 | 1 | 48 | 6 | 0 | 3 | 57 | 2 | 0 | 19 | 7 | 0 | 5 | 28 | 10 | 6 | 84 | 2 | 0 | 2 | 102 | 238 |
| 8:00 AM | 3 | 0 | 24 | 1 | 0 | 1 | 28 | 0 | 1 | 12 | 8 | 0 | 0 | 21 | 3 | 1 | 5 | 2 | 0 | 3 | 11 | 6 | 1 | 48 | 1 | 0 | 2 | 56 | 116 |
| 8:15 AM | 6 | 1 | 28 | 4 | 0 | 1 | 39 | 1 | 1 | 10 | 3 | 0 | 1 | 15 | 3 | 0 | 12 | 0 | 0 | 6 | 15 | 11 | 1 | 45 | 1 | 0 | 8 | 58 | 127 |
| 8:30 AM | 1 | 0 | 16 | 2 | 0 | 1 | 19 | 1 | 1 | 9 | 0 | 0 | 2 | 11 | 5 | 1 | 6 | 0 | 0 | 15 | 12 | 3 | 1 | 32 | 2 | 0 | 4 | 38 | 80 |
| 8:45 AM | 2 | 1 | 12 | 1 | 0 | 1 | 16 | 2 | 1 | 14 | 1 | 0 | 1 | 18 | 1 | 0 | 15 | 0 | 0 | 5 | 16 | 0 | 1 | 24 | 3 | 0 | 1 | 28 | 78 |
| Hourly Total | 12 | 2 | 80 | 8 | 0 | 4 | 102 | 4 | 4 | 45 | 12 | 0 | 4 | 65 | 12 | 2 | 38 | 2 | 0 | 29 | 54 | 20 | 4 | 149 | 7 | 0 | 15 | 180 | 401 |
| 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:00 PM | 2 | 0 | 8 | 1 | 0 | 3 | 11 | 4 | 1 | 49 | 8 | 0 | 2 | 62 | 2 | 1 | 20 | 9 | 0 | 4 | 32 | 3 | 1 | 25 | 8 | 0 | 0 | 37 | 142 |
| 4:15 PM | 1 | 1 | 9 | 0 | 0 | 0 | 11 | 3 | 2 | 33 | 3 | 0 | 0 | 41 | 5 | 1 | 13 | 6 | 0 | 5 | 25 | 2 | 2 | 36 | 3 | 0 | 1 | 43 | 120 |
| 4:30 PM | 3 | 0 | 9 | 1 | 0 | 2 | 13 | 3 | 1 | 59 | 7 | 0 | 0 | 70 | 2 | 2 | 25 | 14 | 0 | 9 | 43 | 5 | 1 | 37 | 12 | 0 | 6 | 55 | 181 |
| 4:45 PM | 3 | 1 | 5 | 0 | 0 | 0 | 9 | 2 | 3 | 32 | 3 | 0 | 0 | 40 | 3 | 1 | 11 | 4 | 0 | 3 | 19 | 1 | 3 | 30 | 2 | 0 | 5 | 36 | 104 |
| Hourly Total | 9 | 2 | 31 | 2 | 0 | 5 | 44 | 12 | 7 | 173 | 21 | 0 | 2 | 213 | 12 | 5 | 69 | 33 | 0 | 21 | 119 | 11 | 7 | 128 | 25 | 0 | 12 | 171 | 547 |
| 5:00 PM | 2 | 1 | 15 | 0 | 0 | 2 | 18 | 1 | 1 | 37 | 5 | 0 | 0 | 44 | 10 | 1 | 25 | 8 | 0 | 0 | 44 | 2 | 1 | 31 | 2 | 0 | 0 | 36 | 142 |
| 5:15 PM | 2 | 2 | 11 | 1 | 0 | 2 | 16 | 0 | 0 | 21 | 2 | 0 | 0 | 23 | 8 | 1 | 9 | 5 | 0 | 2 | 23 | 2 | 0 | 21 | 3 | 0 | 2 | 26 | 88 |
| 5:30 PM | 1 | 0 | 6 | 1 | 0 | 0 | 8 | 0 | 0 | 23 | 1 | 0 | 1 | 24 | 0 | 1 | 8 | 2 | 0 | 1 | 11 | 1 | 0 | 19 | 4 | 0 | 2 | 24 | 67 |
| 5:45 PM | 2 | 1 | 9 | 0 | 0 | 0 | 12 | 0 | 0 | 18 | 1 | 0 | 0 | 19 | 2 | 1 | 6 | 5 | 0 | 5 | 14 | 2 | 1 | 16 | 2 | 0 | 2 | 21 | 66 |
| Hourly Total | 7 | 4 | 41 | 2 | 0 | 4 | 54 | 1 | 1 | 99 | 9 | 0 | 1 | 110 | 20 | 4 | 48 | 20 | 0 | 8 | 92 | 7 | 2 | 87 | 11 | 0 | 6 | 107 | 363 |
| 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Grand Total | 32 | 10 | 193 | 16 | 0 | 17 | 251 | 19 | 13 | 365 | 48 | 0 | 10 | 445 | 46 | 11 | 174 | 62 | 0 | 63 | 293 | 48 | 19 | 448 | 45 | 0 | 35 | 560 | 1549 |
| Approach % | 12.7 | 4.0 | 76.9 | 6.4 | 0.0 | - | - | 4.3 | 2.9 | 82.0 | 10.8 | 0.0 | - | - | 15.7 | 3.8 | 59.4 | 21.2 | 0.0 | - | - | 8.6 | 3.4 | 80.0 | 8.0 | 0.0 | - | - | - |
| Total % | 2.1 | 0.6 | 12.5 | 1.0 | 0.0 | - | 16.2 | 1.2 | 0.8 | 23.6 | 3.1 | 0.0 | - | 28.7 | 3.0 | 0.7 | 11.2 | 4.0 | 0.0 | - | 18.9 | 3.1 | 1.2 | 28.9 | 2.9 | 0.0 | - | 36.2 | - |
| Lights | 30 | 10 | 186 | 14 | 0 | - | 240 | 18 | 13 | 339 | 45 | 0 | - | 415 | 42 | 11 | 170 | 60 | 0 | - | 283 | 48 | 18 | 422 | 42 | 0 | - | 530 | 1468 |
| % Lights | 93.8 | 100.0 | 96.4 | 87.5 | - | - | 95.6 | 94.7 | 100.0 | 92.9 | 93.8 | - | - | 93.3 | 91.3 | 100.0 | 97.7 | 96.8 | - | - | 96.6 | 100.0 | 94.7 | 94.2 | 93.3 | - | - | 94.6 | 94.8 |
| Buses | 0 | 0 | 2 | 0 | 0 | - | 2 | 0 | 0 | 15 | 2 | 0 | - | 17 | 1 | 0 | 1 | 1 | 0 | - | 3 | 0 | 0 | 16 | 0 | 0 | - | 16 | 38 |
| % Buses | 0.0 | 0.0 | 1.0 | 0.0 | - | - | 0.8 | 0.0 | 0.0 | 4.1 | 4.2 | - | - | 3.8 | 2.2 | 0.0 | 0.6 | 1.6 | - | - | 1.0 | 0.0 | 0.0 | 3.6 | 0.0 | - | - | 2.9 | 2.5 |
| Trucks | 0 | 0 | 4 | 2 | 0 | - | 6 | 0 | 0 | 7 | 1 | 0 | - | 8 | 2 | 0 | 1 | 1 | 0 | - | 4 | 0 | 1 | 5 | 2 | 0 | - | 8 | 26 |
| % Trucks | 0.0 | 0.0 | 2.1 | 12.5 | - | - | 2.4 | 0.0 | 0.0 | 1.9 | 2.1 | - | - | 1.8 | 4.3 | 0.0 | 0.6 | 1.6 | - | - | 1.4 | 0.0 | 5.3 | 1.1 | 4.4 | - | - | 1.4 | 1.7 |
| Bicycles on Road | 2 | 0 | 1 | 0 | 0 | - | 3 | 1 | 0 | 4 | 0 | 0 | - | 5 | 1 | 0 | 2 | 0 | 0 | - | 3 | 0 | 0 | 5 | 1 | 0 | - | 6 | 17 |
| % Bicycles on Road | 6.3 | 0.0 | 0.5 | 0.0 | - | - | 1.2 | 5.3 | 0.0 | 1.1 | 0.0 | - | - | 1.1 | 2.2 | 0.0 | 1.1 | 0.0 | - | - | 1.0 | 0.0 | 0.0 | 1.1 | 2.2 | - | - | 1.1 | 1.1 |
| Bicycles on Crosswalk | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 5 | - | - | - | - | - | - | 2 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 7.9 | - | - | - | - | - | - | 5.7 | - | - |
| Pedestrians | - | - | - | - | - | 17 | - | - | - | - | - | - | 10 | - | - | - | - | - | - | 58 | - | - | - | - | - | - | 33 | - | - |
| % Pedestrians | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 92.1 | - | - | - | - | - | - | 94.3 | - | - |



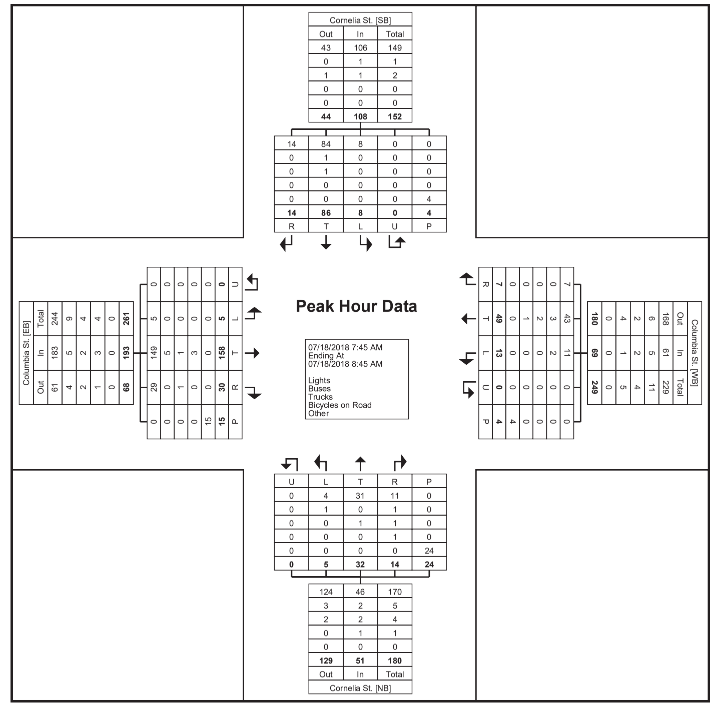



Turning Movement Data Plot

## Turning Movement Peak Hour Data (7:45 AM)

| | Cornelia St. Southbound | | | | | | | Columbia St. Westbound | | | | | | | Cornelia St. Northbound | | | | | | | Columbia St. Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Int. Total |
| 7:45 AM | 2 | 1 | 18 | 1 | 0 | 1 | 22 | 1 | 1 | 18 | 2 | 0 | 1 | 22 | 1 | 0 | 9 | 3 | 0 | 0 | 13 | 2 | 5 | 33 | 1 | 0 | 1 | 41 | 98 |
| 8:00 AM | 3 | 0 | 24 | 1 | 0 | 1 | 28 | 0 | 1 | 12 | 8 | 0 | 0 | 21 | 3 | 1 | 5 | 2 | 0 | 3 | 11 | 6 | 1 | 48 | 1 | 0 | 2 | 56 | 116 |
| 8:15 AM | 6 | 1 | 28 | 4 | 0 | 1 | 39 | 1 | 1 | 10 | 3 | 0 | 1 | 15 | 3 | 0 | 12 | 0 | 0 | 6 | 15 | 11 | 1 | 45 | 1 | 0 | 8 | 58 | 127 |
| 8:30 AM | 1 | 0 | 16 | 2 | 0 | 1 | 19 | 1 | 1 | 9 | 0 | 0 | 2 | 11 | 5 | 1 | 6 | 0 | 0 | 15 | 12 | 3 | 1 | 32 | 2 | 0 | 4 | 38 | 80 |
| Total | 12 | 2 | 86 | 8 | 0 | 4 | 108 | 3 | 4 | 49 | 13 | 0 | 4 | 69 | 12 | 2 | 32 | 5 | 0 | 24 | 51 | 22 | 8 | 158 | 5 | 0 | 15 | 193 | 421 |
| Approach % | 11.1 | 1.9 | 79.6 | 7.4 | 0.0 | - | - | 4.3 | 5.8 | 71.0 | 18.8 | 0.0 | - | - | 23.5 | 3.9 | 62.7 | 9.8 | 0.0 | - | - | 11.4 | 4.1 | 81.9 | 2.6 | 0.0 | - | - | - |
| Total % | 2.9 | 0.5 | 20.4 | 1.9 | 0.0 | - | 25.7 | 0.7 | 1.0 | 11.6 | 3.1 | 0.0 | - | 16.4 | 2.9 | 0.5 | 7.6 | 1.2 | 0.0 | - | 12.1 | 5.2 | 1.9 | 37.5 | 1.2 | 0.0 | - | 45.8 | - |
| PHF | 0.500 | 0.500 | 0.768 | 0.500 | 0.000 | - | 0.692 | 0.750 | 1.000 | 0.681 | 0.406 | 0.000 | - | 0.784 | 0.600 | 0.500 | 0.667 | 0.417 | 0.000 | - | 0.850 | 0.500 | 0.400 | 0.823 | 0.625 | 0.000 | - | 0.832 | 0.829 |
| Lights | 12 | 2 | 84 | 8 | 0 | - | 106 | 3 | 4 | 43 | 11 | 0 | - | 61 | 9 | 2 | 31 | 4 | 0 | - | 46 | 22 | 7 | 149 | 5 | 0 | - | 183 | 396 |
| % Lights | 100.0 | 100.0 | 97.7 | 100.0 | - | - | 98.1 | 100.0 | 100.0 | 87.8 | 84.6 | - | - | 88.4 | 75.0 | 100.0 | 96.9 | 80.0 | - | - | 90.2 | 100.0 | 87.5 | 94.3 | 100.0 | - | - | 94.8 | 94.1 |
| Buses | 0 | 0 | 1 | 0 | 0 | - | 1 | 0 | 0 | 3 | 2 | 0 | - | 5 | 1 | 0 | 0 | 1 | 0 | - | 2 | 0 | 0 | 5 | 0 | 0 | - | 5 | 13 |
| % Buses | 0.0 | 0.0 | 1.2 | 0.0 | - | - | 0.9 | 0.0 | 0.0 | 6.1 | 15.4 | - | - | 7.2 | 8.3 | 0.0 | 0.0 | 20.0 | - | - | 3.9 | 0.0 | 0.0 | 3.2 | 0.0 | - | - | 2.6 | 3.1 |
| Trucks | 0 | 0 | 1 | 0 | 0 | - | 1 | 0 | 0 | 2 | 0 | 0 | - | 2 | 1 | 0 | 1 | 0 | 0 | - | 2 | 0 | 1 | 1 | 0 | 0 | - | 2 | 7 |
| % Trucks | 0.0 | 0.0 | 1.2 | 0.0 | - | - | 0.9 | 0.0 | 0.0 | 4.1 | 0.0 | - | - | 2.9 | 8.3 | 0.0 | 3.1 | 0.0 | - | - | 3.9 | 0.0 | 12.5 | 0.6 | 0.0 | - | - | 1.0 | 1.7 |
| Bicycles on Road | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 1 | 0 | 0 | - | 1 | 1 | 0 | 0 | 0 | 0 | - | 1 | 0 | 0 | 3 | 0 | 0 | - | 3 | 5 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 2.0 | 0.0 | - | - | 1.4 | 8.3 | 0.0 | 0.0 | 0.0 | - | - | 2.0 | 0.0 | 0.0 | 1.9 | 0.0 | - | - | 1.6 | 1.2 |
| Bicycles on Crosswalk | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 4.2 | - | - | - | - | - | - | 0.0 | - | - |
| Pedestrians | - | - | - | - | - | 4 | - | - | - | - | - | - | 4 | - | - | - | - | - | - | 23 | - | - | - | - | - | - | 15 | - | - |
| % Pedestrians | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 95.8 | - | - | - | - | - | - | 100.0 | - | - |






Turning Movement Peak Hour Data Plot (7:45 AM)

Utica, NY
Cornelia/Columbia
Wednesday, July 18, 2018
Location: 43.102966, -75.235761

TRI-STATE TRAFFIC DATA
www.TSTData.com
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-466-1469 jvetterlein@tstdata.com
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Count Name: 8. Cornelia and Columbia
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 5

## Turning Movement Peak Hour Data (4:00 PM)

| Start Time | Cornelia St. Southbound | | | | | | | Columbia St. Westbound | | | | | | | Cornelia St. Northbound | | | | | | | Columbia St. Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Int. Total |
| 4:00 PM | 2 | 0 | 8 | 1 | 0 | 3 | 11 | 4 | 1 | 49 | 8 | 0 | 2 | 62 | 2 | 1 | 20 | 9 | 0 | 4 | 32 | 3 | 1 | 25 | 8 | 0 | 0 | 37 | 142 |
| 4:15 PM | 1 | 1 | 9 | 0 | 0 | 0 | 11 | 3 | 2 | 33 | 3 | 0 | 0 | 41 | 5 | 1 | 13 | 6 | 0 | 5 | 25 | 2 | 2 | 36 | 3 | 0 | 1 | 43 | 120 |
| 4:30 PM | 3 | 0 | 9 | 1 | 0 | 2 | 13 | 3 | 1 | 59 | 7 | 0 | 0 | 70 | 2 | 2 | 25 | 14 | 0 | 9 | 43 | 5 | 1 | 37 | 12 | 0 | 6 | 55 | 181 |
| 4:45 PM | 3 | 1 | 5 | 0 | 0 | 0 | 9 | 2 | 3 | 32 | 3 | 0 | 0 | 40 | 3 | 1 | 11 | 4 | 0 | 3 | 19 | 1 | 3 | 30 | 2 | 0 | 5 | 36 | 104 |
| Total | 9 | 2 | 31 | 2 | 0 | 5 | 44 | 12 | 7 | 173 | 21 | 0 | 2 | 213 | 12 | 5 | 69 | 33 | 0 | 21 | 119 | 11 | 7 | 128 | 25 | 0 | 12 | 171 | 547 |
| Approach % | 20.5 | 4.5 | 70.5 | 4.5 | 0.0 | - | - | 5.6 | 3.3 | 81.2 | 9.9 | 0.0 | - | - | 10.1 | 4.2 | 58.0 | 27.7 | 0.0 | - | - | 6.4 | 4.1 | 74.9 | 14.6 | 0.0 | - | - | - |
| Total % | 1.6 | 0.4 | 5.7 | 0.4 | 0.0 | - | 8.0 | 2.2 | 1.3 | 31.6 | 3.8 | 0.0 | - | 38.9 | 2.2 | 0.9 | 12.6 | 6.0 | 0.0 | - | 21.8 | 2.0 | 1.3 | 23.4 | 4.6 | 0.0 | - | 31.3 | - |
| PHF | 0.750 | 0.500 | 0.861 | 0.500 | 0.000 | - | 0.846 | 0.750 | 0.583 | 0.733 | 0.656 | 0.000 | - | 0.761 | 0.600 | 0.625 | 0.690 | 0.589 | 0.000 | - | 0.692 | 0.550 | 0.583 | 0.865 | 0.521 | 0.000 | - | 0.777 | 0.756 |
| Lights | 8 | 2 | 31 | 1 | 0 | - | 42 | 12 | 7 | 163 | 20 | 0 | - | 202 | 12 | 5 | 68 | 32 | 0 | - | 117 | 11 | 7 | 122 | 23 | 0 | - | 163 | 524 |
| % Lights | 88.9 | 100.0 | 100.0 | 50.0 | - | - | 95.5 | 100.0 | 100.0 | 94.2 | 95.2 | - | - | 94.8 | 100.0 | 100.0 | 98.6 | 97.0 | - | - | 98.3 | 100.0 | 100.0 | 95.3 | 92.0 | - | - | 95.3 | 95.8 |
| Buses | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 4 | 0 | 0 | - | 4 | 0 | 0 | 1 | 0 | 0 | - | 1 | 0 | 0 | 5 | 0 | 0 | - | 5 | 10 |
| % Buses | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 2.3 | 0.0 | - | - | 1.9 | 0.0 | 0.0 | 1.4 | 0.0 | - | - | 0.8 | 0.0 | 0.0 | 3.9 | 0.0 | - | - | 2.9 | 1.8 |
| Trucks | 0 | 0 | 0 | 1 | 0 | - | 1 | 0 | 0 | 4 | 1 | 0 | - | 5 | 0 | 0 | 0 | 1 | 0 | - | 1 | 0 | 0 | 1 | 2 | 0 | - | 3 | 10 |
| % Trucks | 0.0 | 0.0 | 0.0 | 50.0 | - | - | 2.3 | 0.0 | 0.0 | 2.3 | 4.8 | - | - | 2.3 | 0.0 | 0.0 | 0.0 | 3.0 | - | - | 0.8 | 0.0 | 0.0 | 0.8 | 8.0 | - | - | 1.8 | 1.8 |
| Bicycles on Road | 1 | 0 | 0 | 0 | 0 | - | 1 | 0 | 0 | 2 | 0 | 0 | - | 2 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 3 |
| % Bicycles on Road | 11.1 | 0.0 | 0.0 | 0.0 | - | - | 2.3 | 0.0 | 0.0 | 1.2 | 0.0 | - | - | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.5 |
| Bicycles on Crosswalk | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 0.0 | - | - |
| Pedestrians | - | - | - | - | - | 5 | - | - | - | - | - | - | 2 | - | - | - | - | - | - | 21 | - | - | - | - | - | - | 12 | - | - |
| % Pedestrians | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 100.0 | - | - |

Utica, NY
Cornelia/Columbia
Wednesday, July 18, 2018
Location: 43.102966, -75.235761

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Site Code: Utica, New York
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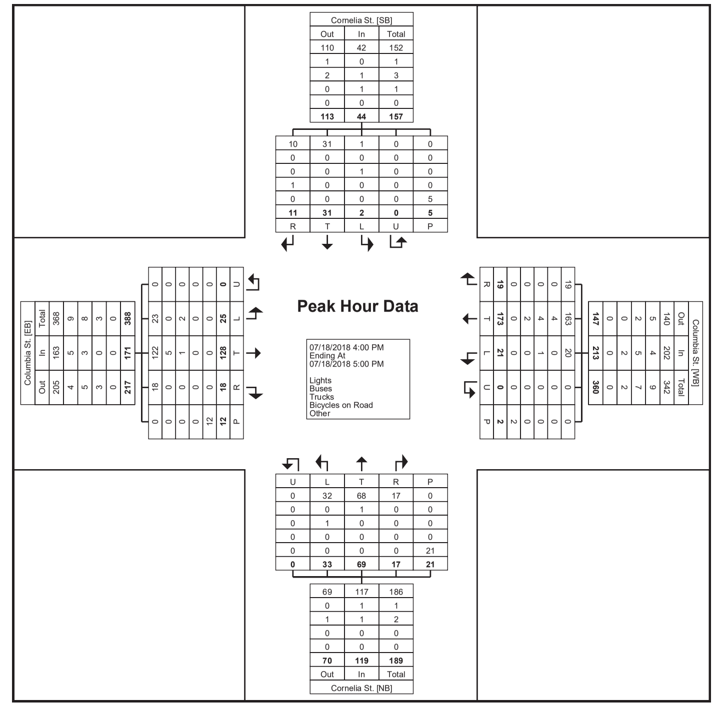
Page No: 6




Turning Movement Peak Hour Data Plot (4:00 PM)

Utica, NY
Cornelia/Columbia
Wednesday, July 18, 2018
Location: 43.102966, -
75.235761

www.TSTData.com
184 Baker Rd

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Count Name: 8. Cornelia and Columbia
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 7

Utica, NY
Cornelia/Court
Wednesday, July 18, 2018
Location: 43.100555, -
75.236944

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Count Name: 9. Cornelia and Court
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 1

# Turning Movement Data

| | Cornelia St. Southbound | | | | | | | Court St Westbound | | | | | | | Cornelia St. Northbound | | | | | | | Court St. Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Int. Total |
| 7:00 AM | 1 | 0 | 1 | 0 | 0 | 3 | 2 | 0 | 0 | 23 | 0 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 4 | 0 | 52 | 2 | 0 | 0 | 58 | 83 |
| 7:15 AM | 2 | 0 | 4 | 2 | 0 | 0 | 8 | 0 | 0 | 38 | 4 | 0 | 0 | 42 | 0 | 1 | 2 | 2 | 0 | 1 | 5 | 3 | 0 | 61 | 7 | 0 | 0 | 71 | 126 |
| 7:30 AM | 2 | 3 | 3 | 4 | 0 | 4 | 12 | 4 | 2 | 45 | 1 | 0 | 0 | 52 | 0 | 0 | 4 | 3 | 0 | 6 | 7 | 5 | 2 | 58 | 3 | 0 | 2 | 68 | 139 |
| 7:45 AM | 1 | 1 | 9 | 6 | 0 | 0 | 17 | 7 | 0 | 56 | 2 | 0 | 0 | 65 | 1 | 1 | 2 | 3 | 0 | 2 | 7 | 8 | 2 | 123 | 9 | 0 | 1 | 142 | 231 |
| Hourly Total | 6 | 4 | 17 | 12 | 0 | 7 | 39 | 11 | 2 | 162 | 7 | 0 | 0 | 182 | 1 | 2 | 8 | 8 | 0 | 11 | 19 | 20 | 4 | 294 | 21 | 0 | 3 | 339 | 579 |
| 8:00 AM | 9 | 4 | 5 | 2 | 0 | 2 | 20 | 9 | 0 | 51 | 1 | 0 | 0 | 61 | 1 | 1 | 2 | 5 | 0 | 0 | 9 | 4 | 1 | 100 | 15 | 0 | 0 | 120 | 210 |
| 8:15 AM | 2 | 5 | 2 | 8 | 0 | 6 | 17 | 5 | 1 | 45 | 2 | 0 | 0 | 53 | 5 | 1 | 4 | 5 | 0 | 2 | 15 | 4 | 0 | 155 | 16 | 0 | 1 | 175 | 260 |
| 8:30 AM | 3 | 2 | 7 | 3 | 0 | 3 | 15 | 4 | 0 | 64 | 2 | 0 | 1 | 70 | 0 | 3 | 2 | 2 | 0 | 2 | 7 | 4 | 0 | 121 | 13 | 0 | 1 | 138 | 230 |
| 8:45 AM | 2 | 2 | 7 | 4 | 0 | 6 | 15 | 5 | 2 | 60 | 5 | 0 | 0 | 72 | 2 | 2 | 0 | 6 | 0 | 9 | 10 | 5 | 2 | 108 | 14 | 0 | 1 | 129 | 226 |
| Hourly Total | 16 | 13 | 21 | 17 | 0 | 17 | 67 | 23 | 3 | 220 | 10 | 0 | 1 | 256 | 8 | 7 | 8 | 18 | 0 | 13 | 41 | 17 | 3 | 484 | 58 | 0 | 3 | 562 | 926 |
| 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:00 PM | 7 | 5 | 7 | 9 | 0 | 0 | 28 | 3 | 1 | 146 | 2 | 0 | 0 | 152 | 0 | 1 | 4 | 12 | 0 | 2 | 17 | 5 | 0 | 94 | 9 | 0 | 1 | 108 | 305 |
| 4:15 PM | 5 | 3 | 4 | 8 | 0 | 3 | 20 | 8 | 1 | 79 | 4 | 0 | 1 | 92 | 2 | 3 | 3 | 6 | 0 | 2 | 14 | 2 | 1 | 78 | 7 | 0 | 2 | 88 | 214 |
| 4:30 PM | 12 | 9 | 15 | 8 | 0 | 2 | 44 | 7 | 1 | 113 | 4 | 0 | 0 | 125 | 1 | 1 | 12 | 13 | 0 | 5 | 27 | 5 | 0 | 83 | 2 | 0 | 0 | 90 | 286 |
| 4:45 PM | 10 | 5 | 4 | 5 | 0 | 5 | 24 | 4 | 0 | 102 | 2 | 0 | 2 | 108 | 3 | 2 | 5 | 7 | 0 | 2 | 17 | 6 | 0 | 82 | 5 | 0 | 1 | 93 | 242 |
| Hourly Total | 34 | 22 | 30 | 30 | 0 | 10 | 116 | 22 | 3 | 440 | 12 | 0 | 3 | 477 | 6 | 7 | 24 | 38 | 0 | 11 | 75 | 18 | 1 | 337 | 23 | 0 | 4 | 379 | 1047 |
| 5:00 PM | 6 | 6 | 10 | 10 | 0 | 2 | 32 | 11 | 0 | 106 | 3 | 0 | 0 | 120 | 4 | 2 | 10 | 21 | 0 | 1 | 37 | 1 | 1 | 65 | 11 | 0 | 2 | 78 | 267 |
| 5:15 PM | 4 | 3 | 4 | 4 | 0 | 2 | 15 | 3 | 0 | 70 | 3 | 0 | 1 | 76 | 0 | 1 | 5 | 14 | 0 | 7 | 20 | 4 | 0 | 82 | 9 | 0 | 0 | 95 | 206 |
| 5:30 PM | 4 | 1 | 2 | 3 | 0 | 0 | 10 | 2 | 0 | 61 | 2 | 0 | 3 | 65 | 1 | 0 | 6 | 9 | 0 | 1 | 16 | 2 | 1 | 49 | 6 | 0 | 0 | 58 | 149 |
| 5:45 PM | 4 | 0 | 4 | 2 | 0 | 1 | 10 | 4 | 0 | 57 | 0 | 0 | 1 | 61 | 0 | 0 | 5 | 8 | 0 | 1 | 13 | 2 | 0 | 65 | 1 | 0 | 0 | 68 | 152 |
| Hourly Total | 18 | 10 | 20 | 19 | 0 | 5 | 67 | 20 | 0 | 294 | 8 | 0 | 5 | 322 | 5 | 3 | 26 | 52 | 0 | 10 | 86 | 9 | 2 | 261 | 27 | 0 | 2 | 299 | 774 |
| 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Grand Total | 74 | 49 | 88 | 78 | 0 | 39 | 289 | 76 | 8 | 1116 | 37 | 0 | 9 | 1237 | 20 | 19 | 66 | 116 | 0 | 45 | 221 | 64 | 10 | 1376 | 129 | 0 | 12 | 1579 | 3326 |
| Approach % | 25.6 | 17.0 | 30.4 | 27.0 | 0.0 | - | - | 6.1 | 0.6 | 90.2 | 3.0 | 0.0 | - | - | 9.0 | 8.6 | 29.9 | 52.5 | 0.0 | - | - | 4.1 | 0.6 | 87.1 | 8.2 | 0.0 | - | - | - |
| Total % | 2.2 | 1.5 | 2.6 | 2.3 | 0.0 | - | 8.7 | 2.3 | 0.2 | 33.6 | 1.1 | 0.0 | - | 37.2 | 0.6 | 0.6 | 2.0 | 3.5 | 0.0 | - | 6.6 | 1.9 | 0.3 | 41.4 | 3.9 | 0.0 | - | 47.5 | - |
| Lights | 72 | 48 | 86 | 74 | 0 | - | 280 | 74 | 8 | 1096 | 37 | 0 | - | 1215 | 20 | 19 | 62 | 116 | 0 | - | 217 | 64 | 10 | 1360 | 126 | 0 | - | 1560 | 3272 |
| % Lights | 97.3 | 98.0 | 97.7 | 94.9 | - | - | 96.9 | 97.4 | 100.0 | 98.2 | 100.0 | - | - | 98.2 | 100.0 | 100.0 | 93.9 | 100.0 | - | - | 98.2 | 100.0 | 100.0 | 98.8 | 97.7 | - | - | 98.8 | 98.4 |
| Buses | 2 | 1 | 0 | 2 | 0 | - | 5 | 1 | 0 | 7 | 0 | 0 | - | 8 | 0 | 0 | 2 | 0 | 0 | - | 2 | 0 | 0 | 8 | 1 | 0 | - | 9 | 24 |
| % Buses | 2.7 | 2.0 | 0.0 | 2.6 | - | - | 1.7 | 1.3 | 0.0 | 0.6 | 0.0 | - | - | 0.6 | 0.0 | 0.0 | 3.0 | 0.0 | - | - | 0.9 | 0.0 | 0.0 | 0.6 | 0.8 | - | - | 0.6 | 0.7 |
| Trucks | 0 | 0 | 2 | 2 | 0 | - | 4 | 1 | 0 | 11 | 0 | 0 | - | 12 | 0 | 0 | 1 | 0 | 0 | - | 1 | 0 | 0 | 8 | 2 | 0 | - | 10 | 27 |
| % Trucks | 0.0 | 0.0 | 2.3 | 2.6 | - | - | 1.4 | 1.3 | 0.0 | 1.0 | 0.0 | - | - | 1.0 | 0.0 | 0.0 | 1.5 | 0.0 | - | - | 0.5 | 0.0 | 0.0 | 0.6 | 1.6 | - | - | 0.6 | 0.8 |
| Bicycles on Road | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 2 | 0 | 0 | - | 2 | 0 | 0 | 1 | 0 | 0 | - | 1 | 0 | 0 | 0 | 0 | 0 | - | 0 | 3 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | - | - | 0.2 | 0.0 | 0.0 | 1.5 | 0.0 | - | - | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.1 |
| Bicycles on Crosswalk | - | - | - | - | - | 2 | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 5 | - | - | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | 5.1 | - | - | - | - | - | - | 11.1 | - | - | - | - | - | - | 11.1 | - | - | - | - | - | - | 0.0 | - | - |
| Pedestrians | - | - | - | - | - | 37 | - | - | - | - | - | - | 8 | - | - | - | - | - | - | 40 | - | - | - | - | - | - | 12 | - | - |
| % Pedestrians | - | - | - | - | - | 94.9 | - | - | - | - | - | - | 88.9 | - | - | - | - | - | - | 88.9 | - | - | - | - | - | - | 100.0 | - | - |

Utica, NY
Cornelia/Court
Wednesday, July 18, 2018
Location: 43.100555, -75.236944

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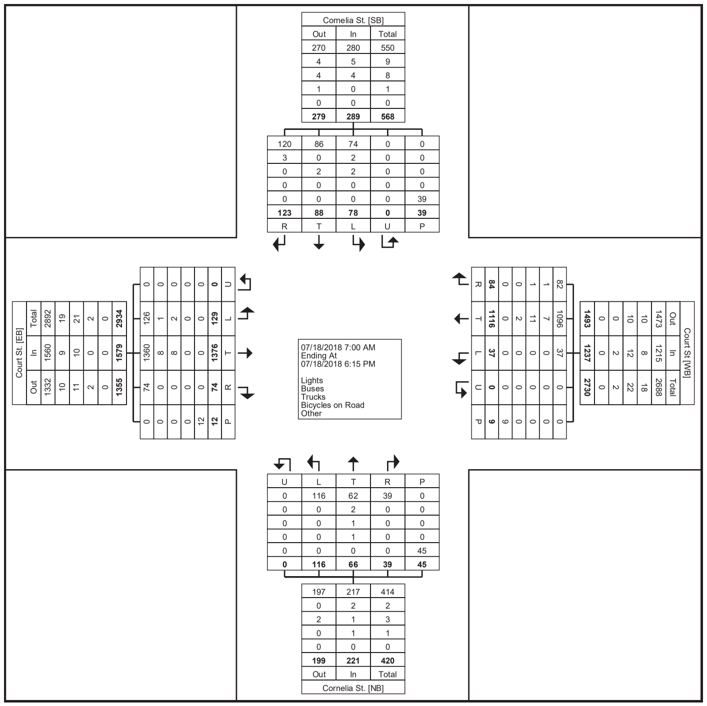
Start Date: 07/18/2018
Page No: 2




Turning Movement Data Plot

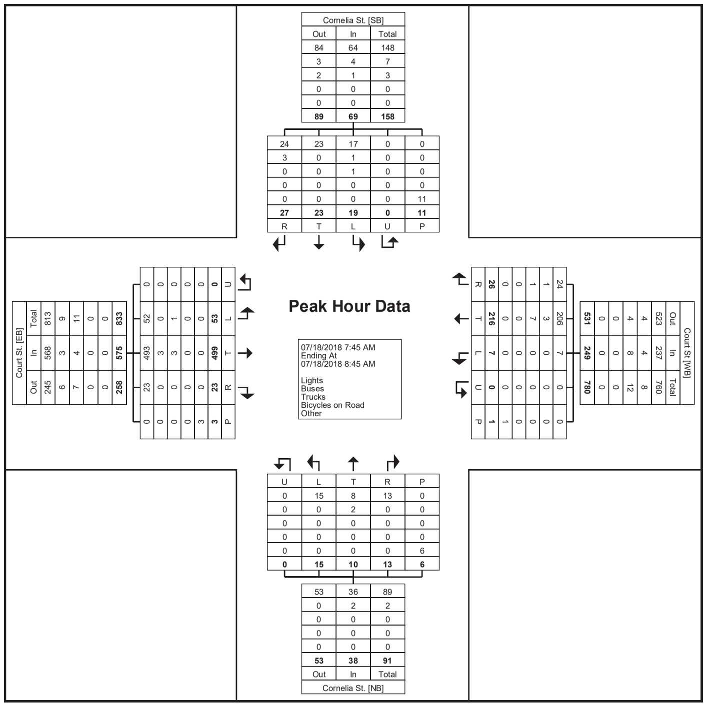
Utica, NY
Cornelia/Court
Wednesday, July 18, 2018
Location: 43.100555, -75.236944

TRI-STATE TRAFFIC DATA
www.TSTData.com
184 Baker Rd
Coatesville, Pennsylvania, United States 19320
610-466-1469 jvetterlein@tstdata.com
Serving Transportation Professionals Since 1995

Count Name: 9. Cornelia and Court
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 3

## Turning Movement Peak Hour Data (7:45 AM)

| | Cornelia St. Southbound | | | | | | | Court St Westbound | | | | | | | Cornelia St. Northbound | | | | | | | Court St. Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Int. Total |
| 7:45 AM | 1 | 1 | 9 | 6 | 0 | 0 | 17 | 7 | 0 | 56 | 2 | 0 | 0 | 65 | 1 | 1 | 2 | 3 | 0 | 2 | 7 | 8 | 2 | 123 | 9 | 0 | 1 | 142 | 231 |
| 8:00 AM | 9 | 4 | 5 | 2 | 0 | 2 | 20 | 9 | 0 | 51 | 1 | 0 | 0 | 61 | 1 | 1 | 2 | 5 | 0 | 0 | 9 | 4 | 1 | 100 | 15 | 0 | 0 | 120 | 210 |
| 8:15 AM | 2 | 5 | 2 | 8 | 0 | 6 | 17 | 5 | 1 | 45 | 2 | 0 | 0 | 53 | 5 | 1 | 4 | 5 | 0 | 2 | 15 | 4 | 0 | 155 | 16 | 0 | 1 | 175 | 260 |
| 8:30 AM | 3 | 2 | 7 | 3 | 0 | 3 | 15 | 4 | 0 | 64 | 2 | 0 | 1 | 70 | 0 | 3 | 2 | 2 | 0 | 2 | 7 | 4 | 0 | 121 | 13 | 0 | 1 | 138 | 230 |
| Total | 15 | 12 | 23 | 19 | 0 | 11 | 69 | 25 | 1 | 216 | 7 | 0 | 1 | 249 | 7 | 6 | 10 | 15 | 0 | 6 | 38 | 20 | 3 | 499 | 53 | 0 | 3 | 575 | 931 |
| Approach % | 21.7 | 17.4 | 33.3 | 27.5 | 0.0 | - | - | 10.0 | 0.4 | 86.7 | 2.8 | 0.0 | - | - | 18.4 | 15.8 | 26.3 | 39.5 | 0.0 | - | - | 3.5 | 0.5 | 86.8 | 9.2 | 0.0 | - | - | - |
| Total % | 1.6 | 1.3 | 2.5 | 2.0 | 0.0 | - | 7.4 | 2.7 | 0.1 | 23.2 | 0.8 | 0.0 | - | 26.7 | 0.8 | 0.6 | 1.1 | 1.6 | 0.0 | - | 4.1 | 2.1 | 0.3 | 53.6 | 5.7 | 0.0 | - | 61.8 | - |
| PHF | 0.417 | 0.600 | 0.639 | 0.594 | 0.000 | - | 0.863 | 0.694 | 0.250 | 0.844 | 0.875 | 0.000 | - | 0.889 | 0.350 | 0.500 | 0.625 | 0.750 | 0.000 | - | 0.633 | 0.625 | 0.375 | 0.805 | 0.828 | 0.000 | - | 0.821 | 0.895 |
| Lights | 13 | 11 | 23 | 17 | 0 | - | 64 | 23 | 1 | 206 | 7 | 0 | - | 237 | 7 | 6 | 8 | 15 | 0 | - | 36 | 20 | 3 | 493 | 52 | 0 | - | 568 | 905 |
| % Lights | 86.7 | 91.7 | 100.0 | 89.5 | - | - | 92.8 | 92.0 | 100.0 | 95.4 | 100.0 | - | - | 95.2 | 100.0 | 100.0 | 80.0 | 100.0 | - | - | 94.7 | 100.0 | 100.0 | 98.8 | 98.1 | - | - | 98.8 | 97.2 |
| Buses | 2 | 1 | 0 | 1 | 0 | - | 4 | 1 | 0 | 3 | 0 | 0 | - | 4 | 0 | 0 | 2 | 0 | 0 | - | 2 | 0 | 0 | 3 | 0 | 0 | - | 3 | 13 |
| % Buses | 13.3 | 8.3 | 0.0 | 5.3 | - | - | 5.8 | 4.0 | 0.0 | 1.4 | 0.0 | - | - | 1.6 | 0.0 | 0.0 | 20.0 | 0.0 | - | - | 5.3 | 0.0 | 0.0 | 0.6 | 0.0 | - | - | 0.5 | 1.4 |
| Trucks | 0 | 0 | 0 | 1 | 0 | - | 1 | 1 | 0 | 7 | 0 | 0 | - | 8 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 3 | 1 | 0 | - | 4 | 13 |
| % Trucks | 0.0 | 0.0 | 0.0 | 5.3 | - | - | 1.4 | 4.0 | 0.0 | 3.2 | 0.0 | - | - | 3.2 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.6 | 1.9 | - | - | 0.7 | 1.4 |
| Bicycles on Road | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 |
| Bicycles on Crosswalk | - | - | - | - | - | 1 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | 9.1 | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 0.0 | - | - |
| Pedestrians | - | - | - | - | - | 10 | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 6 | - | - | - | - | - | - | 3 | - | - |
| % Pedestrians | - | - | - | - | - | 90.9 | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 100.0 | - | - |




Turning Movement Peak Hour Data Plot (7:45 AM)



## Turning Movement Peak Hour Data (4:00 PM)

| | Cornelia St. Southbound | | | | | | | Court St Westbound | | | | | | | Cornelia St. Northbound | | | | | | | Court St. Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Int. Total |
| 4:00 PM | 7 | 5 | 7 | 9 | 0 | 0 | 28 | 3 | 1 | 146 | 2 | 0 | 0 | 152 | 0 | 1 | 4 | 12 | 0 | 2 | 17 | 5 | 0 | 94 | 9 | 0 | 1 | 108 | 305 |
| 4:15 PM | 5 | 3 | 4 | 8 | 0 | 3 | 20 | 8 | 1 | 79 | 4 | 0 | 1 | 92 | 2 | 3 | 3 | 6 | 0 | 2 | 14 | 2 | 1 | 78 | 7 | 0 | 2 | 88 | 214 |
| 4:30 PM | 12 | 9 | 15 | 8 | 0 | 2 | 44 | 7 | 1 | 113 | 4 | 0 | 0 | 125 | 1 | 1 | 12 | 13 | 0 | 5 | 27 | 5 | 0 | 83 | 2 | 0 | 0 | 90 | 286 |
| 4:45 PM | 10 | 5 | 4 | 5 | 0 | 5 | 24 | 4 | 0 | 102 | 2 | 0 | 2 | 108 | 3 | 2 | 5 | 7 | 0 | 2 | 17 | 6 | 0 | 82 | 5 | 0 | 1 | 93 | 242 |
| Total | 34 | 22 | 30 | 30 | 0 | 10 | 116 | 22 | 3 | 440 | 12 | 0 | 3 | 477 | 6 | 7 | 24 | 38 | 0 | 11 | 75 | 18 | 1 | 337 | 23 | 0 | 4 | 379 | 1047 |
| Approach % | 29.3 | 19.0 | 25.9 | 25.9 | 0.0 | - | - | 4.6 | 0.6 | 92.2 | 2.5 | 0.0 | - | - | 8.0 | 9.3 | 32.0 | 50.7 | 0.0 | - | - | 4.7 | 0.3 | 88.9 | 6.1 | 0.0 | - | - | - |
| Total % | 3.2 | 2.1 | 2.9 | 2.9 | 0.0 | - | 11.1 | 2.1 | 0.3 | 42.0 | 1.1 | 0.0 | - | 45.6 | 0.6 | 0.7 | 2.3 | 3.6 | 0.0 | - | 7.2 | 1.7 | 0.1 | 32.2 | 2.2 | 0.0 | - | 36.2 | - |
| PHF | 0.708 | 0.611 | 0.500 | 0.833 | 0.000 | - | 0.659 | 0.688 | 0.750 | 0.753 | 0.750 | 0.000 | - | 0.785 | 0.500 | 0.583 | 0.500 | 0.731 | 0.000 | - | 0.694 | 0.750 | 0.250 | 0.896 | 0.639 | 0.000 | - | 0.877 | 0.858 |
| Lights | 34 | 22 | 30 | 29 | 0 | - | 115 | 22 | 3 | 436 | 12 | 0 | - | 473 | 6 | 7 | 24 | 38 | 0 | - | 75 | 18 | 1 | 333 | 21 | 0 | - | 373 | 1036 |
| % Lights | 100.0 | 100.0 | 100.0 | 96.7 | - | - | 99.1 | 100.0 | 100.0 | 99.1 | 100.0 | - | - | 99.2 | 100.0 | 100.0 | 100.0 | 100.0 | - | - | 100.0 | 100.0 | 100.0 | 98.8 | 91.3 | - | - | 98.4 | 98.9 |
| Buses | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 1 | 0 | 0 | - | 1 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 2 | 1 | 0 | - | 3 | 4 |
| % Buses | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | - | - | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.6 | 4.3 | - | - | 0.8 | 0.4 |
| Trucks | 0 | 0 | 0 | 1 | 0 | - | 1 | 0 | 0 | 1 | 0 | 0 | - | 1 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 2 | 1 | 0 | - | 3 | 5 |
| % Trucks | 0.0 | 0.0 | 0.0 | 3.3 | - | - | 0.9 | 0.0 | 0.0 | 0.2 | 0.0 | - | - | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.6 | 4.3 | - | - | 0.8 | 0.5 |
| Bicycles on Road | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 2 | 0 | 0 | - | 2 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 2 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 | - | - | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.2 |
| Bicycles on Crosswalk | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 9.1 | - | - | - | - | - | - | 0.0 | - | - |
| Pedestrians | - | - | - | - | - | 10 | - | - | - | - | - | - | 3 | - | - | - | - | - | - | 10 | - | - | - | - | - | - | 4 | - | - |
| % Pedestrians | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 90.9 | - | - | - | - | - | - | 100.0 | - | - |

Utica, NY
Cornelia/Court
Wednesday, July 18, 2018
Location: 43.100555, -75.236944

TRI-STATE TRAFFIC DATA
www.TSTData.com
184 Baker Rd
Coatesville, Pennsylvania, United States 19320
610-466-1469 jvetterlein@tstdata.com
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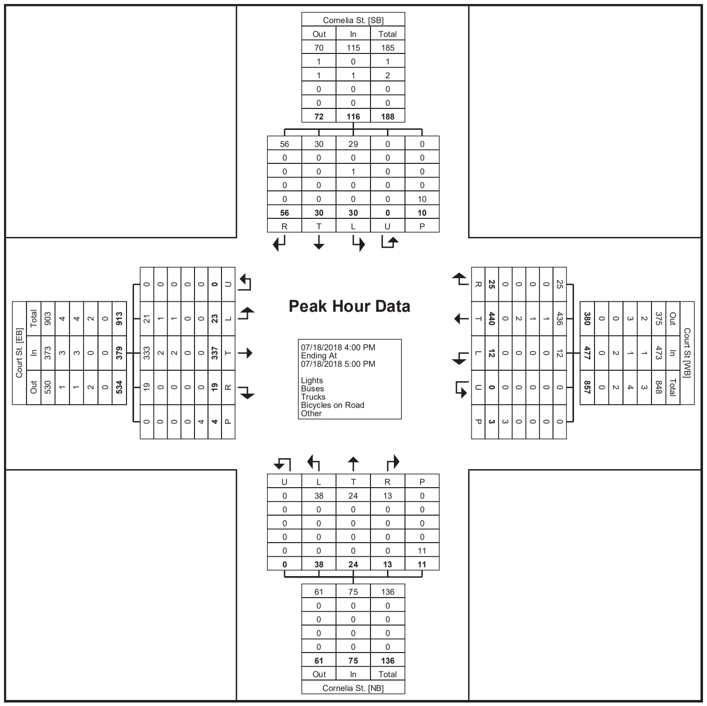



Turning Movement Peak Hour Data Plot (4:00 PM)

## 10. Broadway and Oriskany/Liberty - TMC

Wed Jul 18, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549091, Location: 43.104106, -75.231962, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Oriskany/Liberty | | | | | | | Oriskany/Liberty | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Eastbound | | | | | | | Westbound | | | | | | |
| Time | L | T | R | U | RR | **App** | Ped* | L | T | R | U | RR | **App** | Ped* |
| 2018-07-18 7:00AM | 7 | 149 | 0 | 0 | 1 | **157** | 0 | 4 | 173 | 0 | 0 | 0 | **177** | 0 |
| 7:15AM | 6 | 192 | 1 | 1 | 0 | **200** | 0 | 4 | 196 | 0 | 0 | 0 | **200** | 0 |
| 7:30AM | 13 | 220 | 7 | 0 | 0 | **240** | 0 | 4 | 228 | 0 | 0 | 0 | **232** | 0 |
| 7:45AM | 14 | 249 | 6 | 0 | 1 | **270** | 0 | 9 | 282 | 0 | 0 | 0 | **291** | 0 |
| Hourly Total | 40 | 810 | 14 | 1 | 2 | **867** | 0 | 21 | 879 | 0 | 0 | 0 | **900** | 0 |
| 8:00AM | 15 | 216 | 17 | 1 | 0 | **249** | 0 | 10 | 205 | 0 | 0 | 0 | **215** | 0 |
| 8:15AM | 18 | 201 | 11 | 0 | 3 | **233** | 0 | 9 | 197 | 0 | 0 | 0 | **206** | 0 |
| 8:30AM | 15 | 206 | 9 | 0 | 0 | **230** | 1 | 5 | 201 | 0 | 0 | 0 | **206** | 0 |
| 8:45AM | 14 | 193 | 11 | 0 | 1 | **219** | 0 | 8 | 188 | 1 | 0 | 0 | **197** | 0 |
| Hourly Total | 62 | 816 | 48 | 1 | 4 | **931** | 1 | 32 | 791 | 1 | 0 | 0 | **824** | 0 |
| 9:00AM | 0 | 0 | 0 | 0 | 0 | **0** | 0 | 0 | 1 | 0 | 0 | 0 | **1** | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | **0** | 0 | 0 | 1 | 0 | 0 | 0 | **1** | 0 |
| 4:00PM | 6 | 238 | 2 | 3 | 0 | **249** | 1 | 4 | 219 | 0 | 0 | 0 | **223** | 0 |
| 4:15PM | 5 | 258 | 3 | 0 | 1 | **267** | 0 | 4 | 210 | 0 | 0 | 0 | **214** | 0 |
| 4:30PM | 12 | 263 | 7 | 1 | 0 | **283** | 0 | 3 | 251 | 0 | 0 | 0 | **254** | 0 |
| 4:45PM | 7 | 243 | 5 | 0 | 0 | **255** | 0 | 1 | 218 | 0 | 0 | 0 | **219** | 0 |
| Hourly Total | 30 | 1002 | 17 | 4 | 1 | **1054** | 1 | 12 | 898 | 0 | 0 | 0 | **910** | 0 |
| 5:00PM | 4 | 266 | 6 | 1 | 0 | **277** | 1 | 2 | 210 | 1 | 0 | 0 | **213** | 0 |
| 5:15PM | 9 | 281 | 2 | 0 | 0 | **292** | 0 | 1 | 189 | 1 | 0 | 0 | **191** | 0 |
| 5:30PM | 5 | 231 | 1 | 0 | 1 | **238** | 0 | 0 | 166 | 0 | 1 | 0 | **167** | 0 |
| 5:45PM | 5 | 193 | 2 | 1 | 0 | **201** | 0 | 2 | 132 | 0 | 0 | 0 | **134** | 0 |
| Hourly Total | 23 | 971 | 11 | 2 | 1 | **1008** | 1 | 5 | 697 | 2 | 1 | 0 | **705** | 0 |
| **Total** | 155 | 3599 | 90 | 8 | 8 | **3860** | 3 | 70 | 3266 | 3 | 1 | 0 | **3340** | 0 |
| **% Approach** | 4.0% | 93.2% | 2.3% | 0.2% | 0.2% | - | - | 2.1% | 97.8% | 0.1% | 0% | 0% | - | - |
| **% Total** | 2.0% | 46.7% | 1.2% | 0.1% | 0.1% | **50.1%** | - | 0.9% | 42.4% | 0% | 0% | 0% | **43.4%** | - |
| **Lights** | 152 | 3458 | 88 | 8 | 8 | **3714** | - | 65 | 3117 | 3 | 1 | 0 | **3186** | - |
| **% Lights** | 98.1% | 96.1% | 97.8% | 100% | 100% | **96.2%** | - | 92.9% | 95.4% | 100% | 100% | 0% | **95.4%** | - |
| **Articulated Trucks and Single-Unit Trucks** | 2 | 122 | 2 | 0 | 0 | **126** | - | 3 | 129 | 0 | 0 | 0 | **132** | - |
| **% Articulated Trucks and Single-Unit Trucks** | 1.3% | 3.4% | 2.2% | 0% | 0% | **3.3%** | - | 4.3% | 3.9% | 0% | 0% | 0% | **4.0%** | - |
| **Buses** | 1 | 19 | 0 | 0 | 0 | **20** | - | 2 | 20 | 0 | 0 | 0 | **22** | - |
| **% Buses** | 0.6% | 0.5% | 0% | 0% | 0% | **0.5%** | - | 2.9% | 0.6% | 0% | 0% | 0% | **0.7%** | - |
| **Bicycles on Road** | 0 | 0 | 0 | 0 | 0 | **0** | - | 0 | 0 | 0 | 0 | 0 | **0** | - |
| **% Bicycles on Road** | 0% | 0% | 0% | 0% | 0% | **0%** | - | 0% | 0% | 0% | 0% | 0% | **0%** | - |
| Pedestrians | - | - | - | - | - | - | 3 | - | - | - | - | - | - | 0 |
| % Pedestrians | - | - | - | - | - | - | 100% | - | - | - | - | - | - | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 0% | - | - | - | - | - | - | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn



## 10. Broadway and Oriskany/Liberty - TMC

Wed Jul 18, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549091, Location: 43.104106, -75.231962, Site Code: Utica, New York

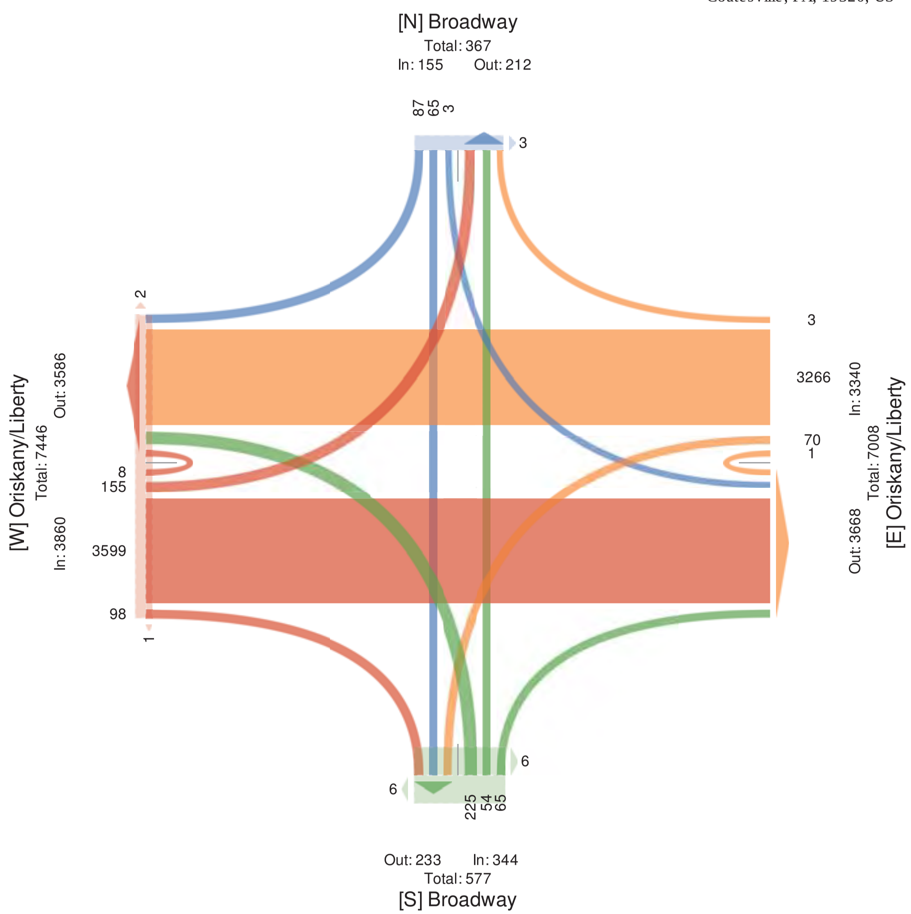
Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Broadway | | | | | | | Broadway | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Northbound | | | | | | | Southbound | | | | | | | |
| Time | L | T | R | U | RR | **App** | Ped* | L | T | R | U | RR | **App** | Ped* | **Int** |
| 2018-07-18 7:00AM | 3 | 3 | 0 | 0 | 1 | **1** | 1 | 0 | 3 | 0 | 0 | 1 | **6** | 0 | **268** |
| 7:15AM | 7 | 1 | 0 | 0 | 2 | **54** | 1 | 0 | 1 | 3 | 0 | 0 | **6** | 0 | **656** |
| 7:30AM | 6 | 2 | 0 | 0 | 3 | **55** | 0 | 0 | 6 | 3 | 0 | 1 | **54** | 1 | **632** |
| 7:45AM | 7 | 4 | 3 | 0 | 1 | **58** | 0 | 0 | 2 | 3 | 0 | 1 | **9** | 0 | **870** |
| Hourly Total | 23 | 10 | 3 | 0 | 7 | **62** | 2 | 0 | 12 | 9 | 0 | 3 | **06** | 1 | **5726** |
| 8:00AM | 9 | 2 | 2 | 0 | 1 | **56** | 0 | 1 | 6 | 1 | 0 | 1 | **3** | 0 | **671** |
| 8:15AM | 10 | 5 | 2 | 0 | 1 | **57** | 0 | 0 | 11 | 5 | 0 | 3 | **53** | 0 | **619** |
| 8:30AM | 7 | 1 | 2 | 0 | 1 | **55** | 0 | 1 | 10 | 2 | 0 | 0 | **52** | 1 | **694** |
| 8:45AM | 3 | 8 | 1 | 0 | 0 | **50** | 3 | 0 | 2 | 2 | 0 | 1 | **8** | 1 | **622** |
| Hourly Total | 29 | 16 | 7 | 0 | 3 | **88** | 3 | 2 | 29 | 10 | 0 | 5 | **69** | 2 | **5789** |
| 9:00AM | 0 | 0 | 0 | 0 | 0 | **4** | 0 | 0 | 0 | 0 | 0 | 0 | **4** | 0 | **5** |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | **4** | 0 | 0 | 0 | 0 | 0 | 0 | **4** | 0 | **5** |
| 4:00PM | 34 | 3 | 1 | 0 | 6 | **66** | 2 | 1 | 4 | 6 | 0 | 5 | **59** | 0 | **820** |
| 4:15PM | 16 | 1 | 5 | 0 | 1 | **02** | 1 | 0 | 1 | 1 | 0 | 3 | **8** | 0 | **843** |
| 4:30PM | 39 | 8 | 0 | 0 | 5 | **80** | 0 | 0 | 3 | 11 | 0 | 4 | **57** | 0 | **941** |
| 4:45PM | 28 | 3 | 6 | 0 | 2 | **23** | 0 | 0 | 4 | 3 | 0 | 3 | **54** | 0 | **802** |
| Hourly Total | 117 | 15 | 12 | 0 | 14 | **587** | 3 | 1 | 12 | 21 | 0 | 15 | **63** | 0 | **0515** |
| 5:00PM | 24 | 4 | 3 | 0 | 7 | **27** | 2 | 0 | 5 | 3 | 0 | 3 | **55** | 0 | **823** |
| 5:15PM | 17 | 4 | 2 | 0 | 1 | **06** | 0 | 0 | 4 | 4 | 0 | 4 | **50** | 0 | **853** |
| 5:30PM | 9 | 0 | 0 | 0 | 3 | **50** | 2 | 0 | 2 | 3 | 0 | 4 | **3** | 0 | **609** |
| 5:45PM | 6 | 5 | 2 | 0 | 1 | **56** | 0 | 0 | 1 | 1 | 0 | 2 | **6** | 0 | **282** |
| Hourly Total | 56 | 13 | 7 | 0 | 12 | **77** | 4 | 0 | 12 | 11 | 0 | 13 | **29** | 0 | **5721** |
| **Total** | 225 | 54 | 29 | 0 | 36 | **266** | 12 | 3 | 65 | 51 | 0 | 36 | **588** | 3 | **1933** |
| **% Approach** | 65.4% | 15.7% | 8.4% | 0% | 10.5% | - | - | 1.9% | 41.9% | 32.9% | 0% | 23.2% | - | - | - |
| **% Total** | 2.9% | 0.7% | 0.4% | 0% | 0.5% | **6.8%** | - | 0% | 0.8% | 0.7% | 0% | 0.5% | **0.4%** | - | - |
| **Lights** | 220 | 46 | 29 | 0 | 36 | **225** | - | 3 | 54 | 49 | 0 | 34 | **564** | - | 7371 |
| **% Lights** | 97.8% | 85.2% | 100% | 0% | 100% | **39.0%** | - | 100% | 83.1% | 96.1% | 0% | 94.4% | **34.2%** | - | 95.7% |
| **Articulated Trucks and Single-Unit Trucks** | 5 | 1 | 0 | 0 | 0 | **9** | - | 0 | 4 | 2 | 0 | 2 | **7** | - | 272 |
| **% Articulated Trucks and Single-Unit Trucks** | 2.2% | 1.9% | 0% | 0% | 0% | **5.1%** | - | 0% | 6.2% | 3.9% | 0% | 5.6% | **8.0%** | - | 3.5% |
| **Buses** | 0 | 7 | 0 | 0 | 0 | **1** | - | 0 | 7 | 0 | 0 | 0 | **1** | - | 56 |
| **% Buses** | 0% | 13.0% | 0% | 0% | 0% | **0.4%** | - | 0% | 10.8% | 0% | 0% | 0% | **6.8%** | - | 0.7% |
| **Bicycles on Road** | 0 | 0 | 0 | 0 | 0 | **4** | - | 0 | 0 | 0 | 0 | 0 | **4** | - | 0 |
| **% Bicycles on Road** | 0% | 0% | 0% | 0% | 0% | **4%** | - | 0% | 0% | 0% | 0% | 0% | **4%** | - | 0% |
| Pedestrians | - | - | - | - | - | - | 11 | - | - | - | - | - | - | 3 | |
| % Pedestrians | - | - | - | - | - | - | 91.7% | - | - | - | - | - | - | 100% | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 8.3% | - | - | - | - | - | - | 0% | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

**10. Broadway and Oriskany/Liberty - TMC**
Wed Jul 18, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549091, Location: 43.104106, -75.231962, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US




Revised A - 46



**10. Broadway and Oriskany/Liberty - TMC**
Wed Jul 18, 2018
AM Peak (7:30AM - 8:30AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549091, Location: 43.104106, -75.231962, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Oriskany/Liberty | | | | | | | Oriskany/Liberty | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Eastbound | | | | | | | Westbound | | | | | | |
| Time | L | T | R | U | RR | App | Ped* | L | T | R | U | RR | App | Ped* |
| 2018-07-18 7:30AM | 13 | 220 | 7 | 0 | 0 | **240** | 0 | 4 | 228 | 0 | 0 | 0 | **232** | 0 |
| 7:45AM | 14 | 249 | 6 | 0 | 1 | **270** | 0 | 9 | 282 | 0 | 0 | 0 | **291** | 0 |
| 8:00AM | 15 | 216 | 17 | 1 | 0 | **249** | 0 | 10 | 205 | 0 | 0 | 0 | **215** | 0 |
| 8:15AM | 18 | 201 | 11 | 0 | 3 | **233** | 0 | 9 | 197 | 0 | 0 | 0 | **206** | 0 |
| **Total** | 60 | 886 | 41 | 1 | 4 | **992** | 0 | 32 | 912 | 0 | 0 | 0 | **944** | 0 |
| **% Approach** | 6.0% | 89.3% | 4.1% | 0.1% | 0.4% | - | - | 3.4% | 96.6% | 0% | 0% | 0% | - | - |
| **% Total** | 2.9% | 43.5% | 2.0% | 0% | 0.2% | **48.7%** | - | 1.6% | 44.7% | 0% | 0% | 0% | **46.3%** | - |
| **PHF** | 0.833 | 0.890 | 0.603 | 0.250 | 0.333 | **0.919** | - | 0.800 | 0.809 | - | - | - | **0.811** | - |
| **Lights** | 58 | 838 | 40 | 1 | 4 | **941** | - | 31 | 857 | 0 | 0 | 0 | **888** | - |
| **% Lights** | 96.7% | 94.6% | 97.6% | 100% | 100% | **94.9%** | - | 96.9% | 94.0% | 0% | 0% | 0% | **94.1%** | - |
| **Articulated Trucks and Single-Unit Trucks** | 1 | 41 | 1 | 0 | 0 | **43** | - | 0 | 46 | 0 | 0 | 0 | **46** | - |
| **% Articulated Trucks and Single-Unit Trucks** | 1.7% | 4.6% | 2.4% | 0% | 0% | **4.3%** | - | 0% | 5.0% | 0% | 0% | 0% | **4.9%** | - |
| **Buses** | 1 | 7 | 0 | 0 | 0 | **8** | - | 1 | 9 | 0 | 0 | 0 | **10** | - |
| **% Buses** | 1.7% | 0.8% | 0% | 0% | 0% | **0.8%** | - | 3.1% | 1.0% | 0% | 0% | 0% | **1.1%** | - |
| **Bicycles on Road** | 0 | 0 | 0 | 0 | 0 | **0** | - | 0 | 0 | 0 | 0 | 0 | **0** | - |
| **% Bicycles on Road** | 0% | 0% | 0% | 0% | 0% | **0%** | - | 0% | 0% | 0% | 0% | 0% | **0%** | - |
| Pedestrians | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

**10. Broadway and Oriskany/Liberty - TMC**
Wed Jul 18, 2018
AM Peak (7:30AM - 8:30AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549091, Location: 43.104106, -75.231962, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

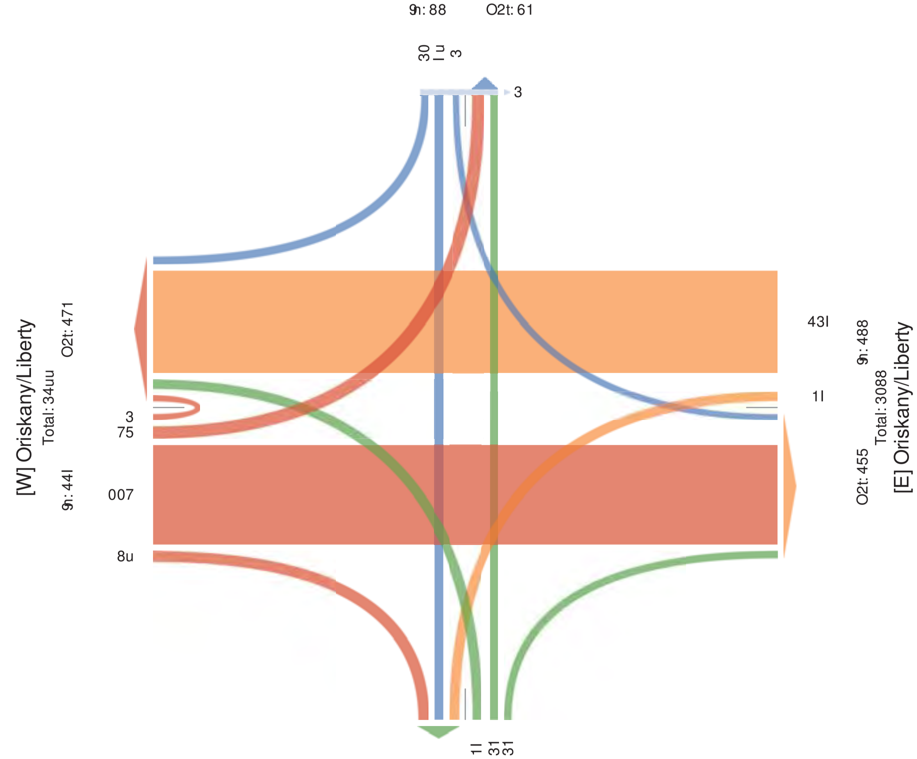
| Leg / Direction | Broadway Northbound | | | | | | | Broadway Southbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | L | T | R | U | RR | **App** | Ped* | L | T | R | U | RR | **App** | Ped* | **Int** |
| 2018-07-18 7:30AM | 6 | 2 | 0 | 0 | 3 | **22** | 0 | 0 | 6 | 3 | 0 | 1 | **25** | 1 | **174** |
| 7:45AM | 7 | 4 | 3 | 0 | 1 | **28** | 0 | 0 | 2 | 3 | 0 | 1 | **0** | 0 | **836** |
| 8:00AM | 9 | 2 | 2 | 0 | 1 | **21** | 0 | 1 | 6 | 1 | 0 | 1 | **7** | 0 | **139** |
| 8:15AM | 10 | 5 | 2 | 0 | 1 | **23** | 0 | 0 | 11 | 5 | 0 | 3 | **27** | 0 | **190** |
| **Total** | 32 | 13 | 7 | 0 | 6 | **83** | 0 | 1 | 25 | 12 | 0 | 6 | **11** | 1 | **6543** |
| **% Approach** | 55.2% | 22.4% | 12.1% | 0% | 10.3% | - | - | 2.3% | 56.8% | 27.3% | 0% | 13.6% | - | - | - |
| **% Total** | 1.6% | 0.6% | 0.3% | 0% | 0.3% | **6.3%** | - | 0% | 1.2% | 0.6% | 0% | 0.3% | **6.6%** | - | - |
| **PHF** | 0.800 | 0.650 | 0.583 | - | 0.500 | **5.350** | - | 0.250 | 0.568 | 0.600 | - | 0.500 | **5.897** | - | 0.875 |
| **Lights** | 30 | 11 | 7 | 0 | 6 | **81** | - | 1 | 20 | 11 | 0 | 4 | **40** | - | 1919 |
| **% Lights** | 93.8% | 84.6% | 100% | 0% | 100% | **74.2%** | - | 100% | 80.0% | 91.7% | 0% | 66.7% | **32.3%** | - | 94.2% |
| **Articulated Trucks and Single-Unit Trucks** | 2 | 0 | 0 | 0 | 0 | **6** | - | 0 | 3 | 1 | 0 | 2 | **0** | - | 97 |
| **% Articulated Trucks and Single-Unit Trucks** | 6.3% | 0% | 0% | 0% | 0% | **4.1%** | - | 0% | 12.0% | 8.3% | 0% | 33.3% | **24.0%** | - | 4.8% |
| **Buses** | 0 | 2 | 0 | 0 | 0 | **6** | - | 0 | 2 | 0 | 0 | 0 | **6** | - | 22 |
| **% Buses** | 0% | 15.4% | 0% | 0% | 0% | **4.1%** | - | 0% | 8.0% | 0% | 0% | 0% | **1.8%** | - | 1.1% |
| **Bicycles on Road** | 0 | 0 | 0 | 0 | 0 | **5** | - | 0 | 0 | 0 | 0 | 0 | **5** | - | 0 |
| **% Bicycles on Road** | 0% | 0% | 0% | 0% | 0% | **5%** | - | 0% | 0% | 0% | 0% | 0% | **5%** | - | 0% |
| Pedestrians | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 1 | |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | 100% | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | 0% | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn



**10. Broadway and Oriskany/Liberty - TMC**
Wed Jul 18, 2018
AM Peak (7:30AM - 8:30AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549091, Location: 43.104106, -75.231962, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US



**10. Broadway and Oriskany/Liberty - TMC**
Wed Jul 18, 2018
Forced Peak (7:45AM - 8:45AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549091, Location: 43.104106, -75.231962, Site Code: Utica, New York

TRI-STATE TRAFFIC DATA
Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Oriskany/Liberty | | | | | | | Oriskany/Liberty | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Eastbound | | | | | | | Westbound | | | | | | |
| Time | L | T | R | U | RR | App | Ped* | L | T | R | U | RR | App | Ped* |
| 2018-07-18 7:45AM | 14 | 249 | 6 | 0 | 1 | **240** | 0 | 9 | 282 | 0 | 0 | 0 | **237** | 0 |
| 8:00AM | 15 | 216 | 17 | 1 | 0 | **293** | 0 | 10 | 205 | 0 | 0 | 0 | **271** | 0 |
| 8:15AM | 18 | 201 | 11 | 0 | 3 | **255** | 0 | 9 | 197 | 0 | 0 | 0 | **206** | 0 |
| 8:30AM | 15 | 206 | 9 | 0 | 0 | **250** | 1 | 5 | 201 | 0 | 0 | 0 | **206** | 0 |
| **Total** | 62 | 872 | 43 | 1 | 4 | **3%2** | 1 | 33 | 885 | 0 | 0 | 0 | **37%** | 0 |
| **rAppcoah-** | 6.3% | 88.8% | 4.4% | 0.1% | 0.4% | **8** | - | 3.6% | 96.4% | 0% | 0% | 0% | **8** | - |
| **rTotal** | 3.1% | 43.5% | 2.1% | 0% | 0.2% | **93.0** | - | 1.6% | 44.1% | 0% | 0% | 0% | **91.%** | - |
| **PHF** | 0.861 | 0.876 | 0.632 | 0.250 | 0.333 | **0.303** | - | 0.825 | 0.785 | - | - | - | **0.4%3** | - |
| **Lig- ts** | 60 | 821 | 43 | 1 | 4 | **323** | - | 30 | 838 | 0 | 0 | 0 | **%6%** | - |
| **rLig- ts** | 96.8% | 94.2% | 100% | 100% | 100% | **39.6** | - | 90.9% | 94.7% | 0% | 0% | 0% | **39.6** | - |
| **ActihulatedrTcuhksrandrSingle8UnitrTcuhks** | 1 | 42 | 0 | 0 | 0 | **95** | - | 1 | 44 | 0 | 0 | 0 | **91** | - |
| **rActihulatedrTcuhksrandrSingle8UnitrTcuhks** | 1.6% | 4.8% | 0% | 0% | 0% | **9.9** | - | 3.0% | 5.0% | 0% | 0% | 0% | **9.3** | - |
| **Buses** | 1 | 9 | 0 | 0 | 0 | **70** | - | 2 | 3 | 0 | 0 | 0 | **1** | - |
| **rBuses** | 1.6% | 1.0% | 0% | 0% | 0% | **7.0** | - | 6.1% | 0.3% | 0% | 0% | 0% | **0.1** | - |
| **BihyhlesronrRoad** | 0 | 0 | 0 | 0 | 0 | **0** | - | 0 | 0 | 0 | 0 | 0 | **0** | - |
| **rBihyhlesronrRoad** | 0% | 0% | 0% | 0% | 0% | **0** | - | 0% | 0% | 0% | 0% | 0% | **0** | - |
| Pedestrians | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 0 |
| % Pedestrians | - | - | - | - | - | - | 100% | - | - | - | - | - | - | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 0% | - | - | - | - | - | - | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn



**10. Broadway and Oriskany/Liberty - TMC**
Wed Jul 18, 2018
Forced Peak (7:45AM - 8:45AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549091, Location: 43.104106, -75.231962, Site Code: Utica, New York

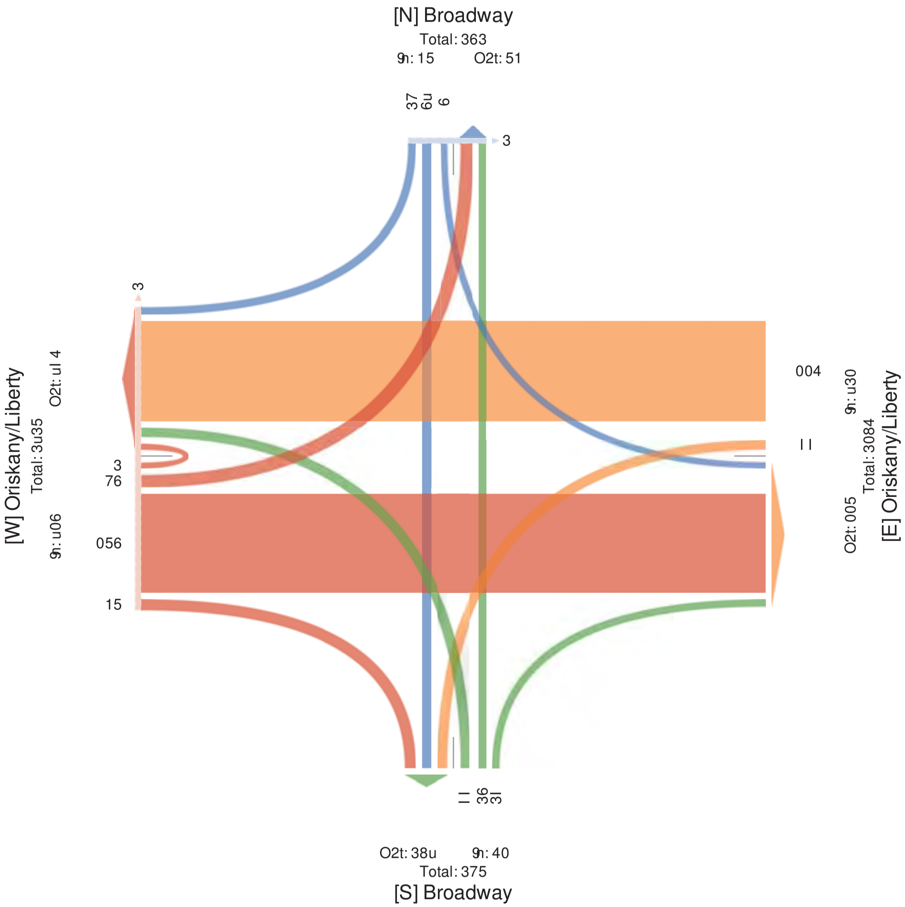
TRI-STATE TRAFFIC DATA
Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Broadway | | | | | | | Broadway | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Northbound | | | | | | | Southbound | | | | | | | |
| Time | L | T | R | U | RR | App | Ped* | L | T | R | U | RR | App | Ped* | Int |
| 2018-07-18 7:45AM | 7 | 4 | 3 | 0 | 1 | **25** | 0 | 0 | 2 | 3 | 0 | 1 | **1** | 0 | **574** |
| 8:00AM | 9 | 2 | 2 | 0 | 1 | **28** | 0 | 1 | 6 | 1 | 0 | 1 | **0** | 0 | **873** |
| 8:15AM | 10 | 5 | 2 | 0 | 1 | **27** | 0 | 0 | 11 | 5 | 0 | 3 | **20** | 0 | **831** |
| 8:30AM | 7 | 1 | 2 | 0 | 1 | **22** | 0 | 1 | 10 | 2 | 0 | 0 | **26** | 1 | **819** |
| **Total** | 33 | 12 | 9 | 0 | 4 | **57** | 0 | 2 | 29 | 11 | 0 | 5 | **83** | 1 | **4995** |
| **% Approach** | 56.9% | 20.7% | 15.5% | 0% | 6.9% | - | - | 4.3% | 61.7% | 23.4% | 0% | 10.6% | - | - | - |
| **% Total** | 1.6% | 0.6% | 0.4% | 0% | 0.2% | **4.0%** | - | 0.1% | 1.4% | 0.5% | 0% | 0.2% | **4.6%** | - | - |
| **PHF** | 0.825 | 0.600 | 0.750 | - | 1.000 | **9.791** | - | 0.500 | 0.659 | 0.550 | - | 0.417 | **9.127** | - | 0.861 |
| **Lights** | 31 | 10 | 9 | 0 | 4 | **58** | - | 2 | 24 | 11 | 0 | 3 | **89** | - | 1891 |
| **% Lights** | 93.9% | 83.3% | 100% | 0% | 100% | **06.2%** | - | 100% | 82.8% | 100% | 0% | 60.0% | **75.2%** | - | 94.3% |
| **Articulated Trucks and Single-Unit Trucks** | 2 | 0 | 0 | 0 | 0 | **4** | - | 0 | 3 | 0 | 0 | 2 | **5** | - | 95 |
| **% Articulated Trucks and Single-Unit Trucks** | 6.1% | 0% | 0% | 0% | 0% | **6.8%** | - | 0% | 10.3% | 0% | 0% | 40.0% | **29.1%** | - | 4.7% |
| **Buses** | 0 | 2 | 0 | 0 | 0 | **4** | - | 0 | 2 | 0 | 0 | 0 | **4** | - | 19 |
| **% Buses** | 0% | 16.7% | 0% | 0% | 0% | **6.8%** | - | 0% | 6.9% | 0% | 0% | 0% | **8.6%** | - | 0.9% |
| **Bicycles on Road** | 0 | 0 | 0 | 0 | 0 | **9** | - | 0 | 0 | 0 | 0 | 0 | **9** | - | 0 |
| **% Bicycles on Road** | 0% | 0% | 0% | 0% | 0% | **9%** | - | 0% | 0% | 0% | 0% | 0% | **9%** | - | 0% |
| Pedestrians | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 1 | |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | 100% | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | 0% | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

**10. Broadway and Oriskany/Liberty - TMC**
Wed Jul 18, 2018
FLngед t eh( 7AM94 P 68M94 P )
4 ll Clhaaea 7s ir cTa, 4 nTgulhTed k nug(a hSd UiSr le6BSiTk nug(a, y uaea, t edeaTnihSa, y igoglea LS RLhd, y igoglea LS CnLaawhl( )
4 ll P LvemeSTa
IDM9- : 0: 1, s LghTLSM5310- 10. , 6A93251: . 2, UiTe CLdeMBTgh, New YLn(

t nLvided boMk ni6UThTe k nhffig DhTh, ISg3 18- yh( en RLhd, CLhTeaville, t 4 , 1: 520, BU






**10. Broadway and Oriskany/Liberty - TMC**
Wed Jul 18, 2018
PM Peak (4:30PM - 5:30PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549091, Location: 43.104106, -75.231962, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Oriskany/Liberty | | | | | | | Oriskany/Liberty | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Eastbound | | | | | | | Westbound | | | | | | |
| Time | L | T | R | U | RR | App | Ped* | L | T | R | U | RR | App | Ped* |
| 2018-07-18 4:30PM | 12 | 263 | 7 | 1 | 0 | **240** | 0 | 3 | 251 | 0 | 0 | 0 | **237** | 0 |
| 4:45PM | 7 | 243 | 5 | 0 | 0 | **233** | 0 | 1 | 218 | 0 | 0 | 0 | **291** | 0 |
| 5:00PM | 4 | 266 | 6 | 1 | 0 | **255** | 1 | 2 | 210 | 1 | 0 | 0 | **290** | 0 |
| 5:15PM | 9 | 281 | 2 | 0 | 0 | **212** | 0 | 1 | 189 | 1 | 0 | 0 | **919** | 0 |
| **6 Tot a** | 32 | 1053 | 20 | 2 | 0 | **99l 5** | 1 | 7 | 868 | 2 | 0 | 0 | **455** | 0 |
| **% ApprTt ch** | 2.9% | 95.1% | 1.8% | 0.2% | 0% | - | - | 0.8% | 99.0% | 0.2% | 0% | 0% | - | - |
| **% 6 Tot a** | 1.5% | 48.1% | 0.9% | 0.1% | 0% | **3l 8 %** | - | 0.3% | 39.7% | 0.1% | 0% | 0% | **7l 89%** | - |
| **PHF** | 0.667 | 0.937 | 0.714 | 0.500 | - | **l 8l74** | - | 0.583 | 0.865 | 0.500 | - | - | **l 84. 0** | - |
| **Lighos** | 32 | 1035 | 19 | 2 | 0 | **9l 44** | - | 7 | 847 | 2 | 0 | 0 | **43.** | - |
| **% Lighos** | 100% | 98.3% | 95.0% | 100% | 0% | **1480%** | - | 100% | 97.6% | 100% | 0% | 0% | **158 %** | - |
| **Arcicuat œd 6 rucks t nd Singæ-Unio6 rucks** | 0 | 16 | 1 | 0 | 0 | **95** | - | 0 | 20 | 0 | 0 | 0 | **2l** | - |
| **% Arcicuat œd 6 rucks t nd Singæ-Unio6 rucks** | 0% | 1.5% | 5.0% | 0% | 0% | **983%** | - | 0% | 2.3% | 0% | 0% | 0% | **280%** | - |
| **Buses** | 0 | 2 | 0 | 0 | 0 | **2** | - | 0 | 1 | 0 | 0 | 0 | **9** | - |
| **% Buses** | 0% | 0.2% | 0% | 0% | 0% | **l 82%** | - | 0% | 0.1% | 0% | 0% | 0% | **l 89%** | - |
| **Bicycæs Tn RTt d** | 0 | 0 | 0 | 0 | 0 | **l** | - | 0 | 0 | 0 | 0 | 0 | **l** | - |
| **% Bicycæs Tn RTt d** | 0% | 0% | 0% | 0% | 0% | **l %** | - | 0% | 0% | 0% | 0% | 0% | **l %** | - |
| Pedestrians | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 0 |
| % Pedestrians | - | - | - | - | - | - | 100% | - | - | - | - | - | - | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 0% | - | - | - | - | - | - | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

**10. Broadway and Oriskany/Liberty - TMC**
Wed Jul 18, 2018
PM Peak (4:30PM - 5:30PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549091, Location: 43.104106, -75.231962, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Broadway | | | | | | | Broadway | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Northbound | | | | | | | Southbound | | | | | | | |
| Time | L | T | R | U | RR | App | Ped* | L | T | R | U | RR | App | Ped* | Int |
| 2018-07-18 4:30PM | 39 | 8 | 0 | 0 | 5 | **25** | 0 | 0 | 3 | 11 | 0 | 4 | **17** | 0 | **480** |
| 4:45PM | 28 | 3 | 6 | 0 | 2 | **36** | 0 | 0 | 4 | 3 | 0 | 3 | **18** | 0 | **253** |
| 5:00PM | 24 | 4 | 3 | 0 | 7 | **37** | 2 | 0 | 5 | 3 | 0 | 3 | **11** | 0 | **236** |
| 5:15PM | 17 | 4 | 2 | 0 | 1 | **59** | 0 | 0 | 4 | 4 | 0 | 4 | **15** | 0 | **216** |
| **Total** | 108 | 19 | 11 | 0 | 15 | **123** | 2 | 0 | 16 | 21 | 0 | 14 | **21** | 0 | **5177** |
| **% Approach** | 70.6% | 12.4% | 7.2% | 0% | 9.8% | - | - | 0% | 31.4% | 41.2% | 0% | 27.5% | - | - | - |
| **% Total** | 4.9% | 0.9% | 0.5% | 0% | 0.7% | **0.8%** | - | 0% | 0.7% | 1.0% | 0% | 0.6% | **5.3%** | - | - |
| **PHF** | 0.692 | 0.594 | 0.458 | - | 0.536 | **8.034** | - | - | 0.800 | 0.477 | - | 0.875 | **8.087** | - | 0.901 |
| **Lights** | 108 | 17 | 11 | 0 | 15 | **121** | - | 0 | 14 | 20 | 0 | 14 | **97** | - | 2143 |
| **% Lights** | 100% | 89.5% | 100% | 0% | 100% | **67.0%** | - | 0% | 87.5% | 95.2% | 0% | 100% | **69.1%** | - | 97.9% |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 0 | 0 | 0 | 0 | **8** | - | 0 | 0 | 1 | 0 | 0 | **1** | - | 38 |
| **% Articulated Trucks and Single-Unit Trucks** | 0% | 0% | 0% | 0% | 0% | **8%** | - | 0% | 0% | 4.8% | 0% | 0% | **5.8%** | - | 1.7% |
| **Buses** | 0 | 2 | 0 | 0 | 0 | **5** | - | 0 | 2 | 0 | 0 | 0 | **5** | - | 7 |
| **% Buses** | 0% | 10.5% | 0% | 0% | 0% | **1.3%** | - | 0% | 12.5% | 0% | 0% | 0% | **3.6%** | - | 0.3% |
| **Bicycles on Road** | 0 | 0 | 0 | 0 | 0 | **8** | - | 0 | 0 | 0 | 0 | 0 | **8** | - | 0 |
| **% Bicycles on Road** | 0% | 0% | 0% | 0% | 0% | **8%** | - | 0% | 0% | 0% | 0% | 0% | **8%** | - | 0% |
| Pedestrians | - | - | - | - | - | - | 2 | - | - | - | - | - | - | 0 | |
| % Pedestrians | - | - | - | - | - | - | 100% | - | - | - | - | - | - | - | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 0% | - | - | - | - | - | - | - | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn



**10. Broadway and Oriskany/Liberty - TMC**
Wed Jul 18, 2018
PM Peak (4-50PM ) O-50PMv ) r Heoall Peak ACuo
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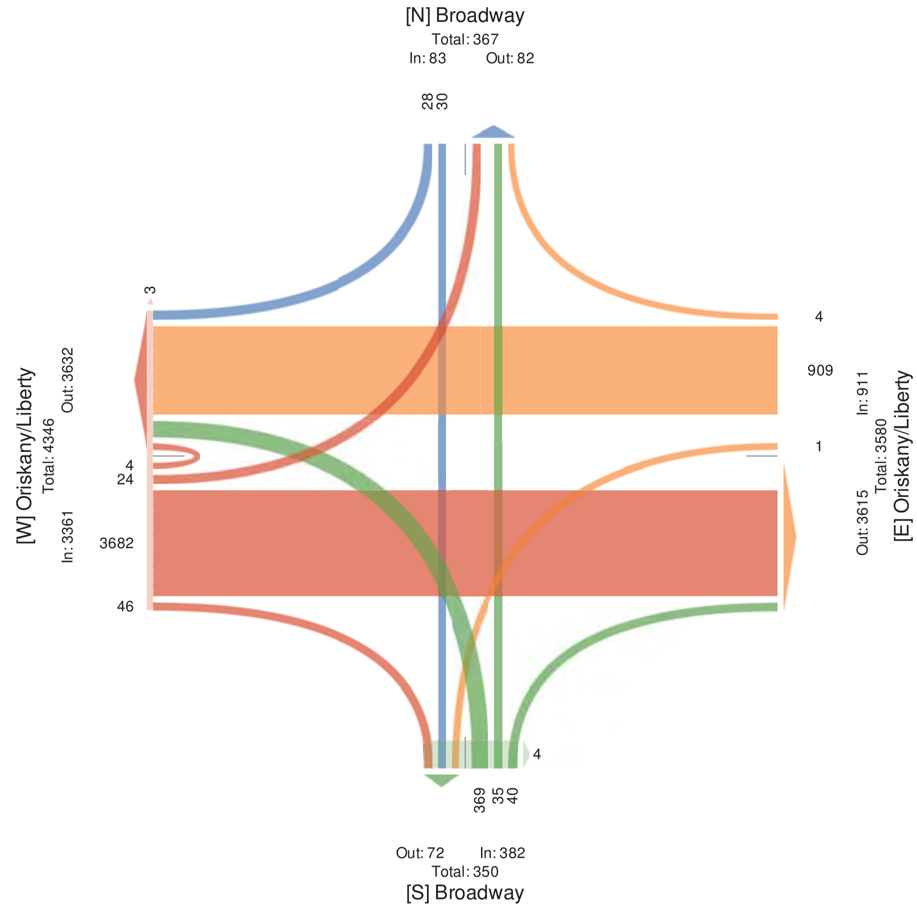





Revised A - 50

## 10. Broadway and Oriskany/Liberty - TMC

Wed Jul 18, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549091, Location: 43.104106, -75.231962, Site Code: Utica, New York

TRI-STATE TRAFFIC DATA
Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg / Direction | Oriskany/Liberty Eastbound | | | | | | | Oriskany/Liberty Westbound | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | L | T | R | U | RR | App | Ped* | L | T | R | U | RR | App | Ped* |
| 2018-07-18 7:00AM | 7 | 149 | 0 | 0 | 1 | **157** | 0 | 4 | 173 | 0 | 0 | 0 | **177** | 0 |
| 7:15AM | 6 | 192 | 1 | 1 | 0 | **200** | 0 | 4 | 196 | 0 | 0 | 0 | **200** | 0 |
| 7:30AM | 13 | 220 | 7 | 0 | 0 | **240** | 0 | 4 | 228 | 0 | 0 | 0 | **232** | 0 |
| 7:45AM | 14 | 249 | 6 | 0 | 1 | **270** | 0 | 9 | 282 | 0 | 0 | 0 | **291** | 0 |
| Hourly Total | 40 | 810 | 14 | 1 | 2 | **867** | 0 | 21 | 879 | 0 | 0 | 0 | **900** | 0 |
| 8:00AM | 15 | 216 | 17 | 1 | 0 | **249** | 0 | 10 | 205 | 0 | 0 | 0 | **215** | 0 |
| 8:15AM | 18 | 201 | 11 | 0 | 3 | **233** | 0 | 9 | 197 | 0 | 0 | 0 | **206** | 0 |
| 8:30AM | 15 | 206 | 9 | 0 | 0 | **230** | 1 | 5 | 201 | 0 | 0 | 0 | **206** | 0 |
| 8:45AM | 14 | 193 | 11 | 0 | 1 | **219** | 0 | 8 | 188 | 1 | 0 | 0 | **197** | 0 |
| Hourly Total | 62 | 816 | 48 | 1 | 4 | **931** | 1 | 32 | 791 | 1 | 0 | 0 | **824** | 0 |
| 9:00AM | 0 | 0 | 0 | 0 | 0 | **0** | 0 | 0 | 1 | 0 | 0 | 0 | **1** | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | **0** | 0 | 0 | 1 | 0 | 0 | 0 | **1** | 0 |
| 4:00PM | 6 | 238 | 2 | 3 | 0 | **249** | 1 | 4 | 219 | 0 | 0 | 0 | **223** | 0 |
| 4:15PM | 5 | 258 | 3 | 0 | 1 | **267** | 0 | 4 | 210 | 0 | 0 | 0 | **214** | 0 |
| 4:30PM | 12 | 263 | 7 | 1 | 0 | **283** | 0 | 3 | 251 | 0 | 0 | 0 | **254** | 0 |
| 4:45PM | 7 | 243 | 5 | 0 | 0 | **255** | 0 | 1 | 218 | 0 | 0 | 0 | **219** | 0 |
| Hourly Total | 30 | 1002 | 17 | 4 | 1 | **1054** | 1 | 12 | 898 | 0 | 0 | 0 | **910** | 0 |
| 5:00PM | 4 | 266 | 6 | 1 | 0 | **277** | 1 | 2 | 210 | 1 | 0 | 0 | **213** | 0 |
| 5:15PM | 9 | 281 | 2 | 0 | 0 | **292** | 0 | 1 | 189 | 1 | 0 | 0 | **191** | 0 |
| 5:30PM | 5 | 231 | 1 | 0 | 1 | **238** | 0 | 0 | 166 | 0 | 1 | 0 | **167** | 0 |
| 5:45PM | 5 | 193 | 2 | 1 | 0 | **201** | 0 | 2 | 132 | 0 | 0 | 0 | **134** | 0 |
| Hourly Total | 23 | 971 | 11 | 2 | 1 | **1008** | 1 | 5 | 697 | 2 | 1 | 0 | **705** | 0 |
| **Total** | 155 | 3599 | 90 | 8 | 8 | **3860** | 3 | 70 | 3266 | 3 | 1 | 0 | **3340** | 0 |
| **% Approach** | 4.0% | 93.2% | 2.3% | 0.2% | 0.2% | - | - | 2.1% | 97.8% | 0.1% | 0% | 0% | - | - |
| **% Total** | 2.0% | 46.7% | 1.2% | 0.1% | 0.1% | **50.1%** | - | 0.9% | 42.4% | 0% | 0% | 0% | **43.4%** | - |
| **Lights** | 152 | 3458 | 88 | 8 | 8 | **3714** | - | 65 | 3117 | 3 | 1 | 0 | **3186** | - |
| **% Lights** | 98.1% | 96.1% | 97.8% | 100% | 100% | **96.2%** | - | 92.9% | 95.4% | 100% | 100% | 0% | **95.4%** | - |
| **Articulated Trucks and Single-Unit Trucks** | 2 | 122 | 2 | 0 | 0 | **126** | - | 3 | 129 | 0 | 0 | 0 | **132** | - |
| **% Articulated Trucks and Single-Unit Trucks** | 1.3% | 3.4% | 2.2% | 0% | 0% | **3.3%** | - | 4.3% | 3.9% | 0% | 0% | 0% | **4.0%** | - |
| **Buses** | 1 | 19 | 0 | 0 | 0 | **20** | - | 2 | 20 | 0 | 0 | 0 | **22** | - |
| **% Buses** | 0.6% | 0.5% | 0% | 0% | 0% | **0.5%** | - | 2.9% | 0.6% | 0% | 0% | 0% | **0.7%** | - |
| **Bicycles on Road** | 0 | 0 | 0 | 0 | 0 | **0** | - | 0 | 0 | 0 | 0 | 0 | **0** | - |
| **% Bicycles on Road** | 0% | 0% | 0% | 0% | 0% | **0%** | - | 0% | 0% | 0% | 0% | 0% | **0%** | - |
| Pedestrians | - | - | - | - | - | - | 3 | - | - | - | - | - | - | 0 |
| % Pedestrians | - | - | - | - | - | - | 100% | - | - | - | - | - | - | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 0% | - | - | - | - | - | - | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn



## 10. Broadway and Oriskany/Liberty - TMC

Wed Jul 18, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549091, Location: 43.104106, -75.231962, Site Code: Utica, New York

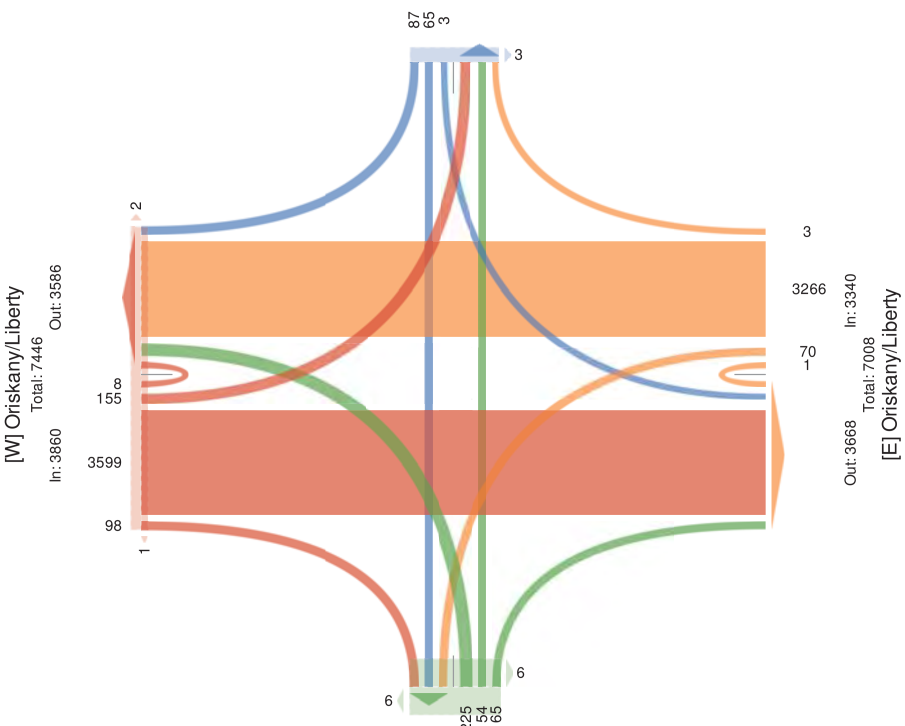
TRI-STATE TRAFFIC DATA
Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg / Direction | Broadway Northbound | | | | | | | Broadway Southbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | L | T | R | U | RR | App | Ped* | L | T | R | U | RR | App | Ped* | Int |
| 2018-07-18 7:00AM | 3 | 3 | 0 | 0 | 1 | **1** | 1 | 0 | 3 | 0 | 0 | 1 | **6** | 0 | **268** |
| 7:15AM | 7 | 1 | 0 | 0 | 2 | **54** | 1 | 0 | 1 | 3 | 0 | 0 | **6** | 0 | **656** |
| 7:30AM | 6 | 2 | 0 | 0 | 3 | **55** | 0 | 0 | 6 | 3 | 0 | 1 | **54** | 1 | **632** |
| 7:45AM | 7 | 4 | 3 | 0 | 1 | **58** | 0 | 0 | 2 | 3 | 0 | 1 | **9** | 0 | **870** |
| Hourly Total | 23 | 10 | 3 | 0 | 7 | **62** | 2 | 0 | 12 | 9 | 0 | 3 | **06** | 1 | **5726** |
| 8:00AM | 9 | 2 | 2 | 0 | 1 | **56** | 0 | 1 | 6 | 1 | 0 | 1 | **3** | 0 | **671** |
| 8:15AM | 10 | 5 | 2 | 0 | 1 | **57** | 0 | 0 | 11 | 5 | 0 | 3 | **53** | 0 | **619** |
| 8:30AM | 7 | 1 | 2 | 0 | 1 | **55** | 0 | 1 | 10 | 2 | 0 | 0 | **52** | 1 | **694** |
| 8:45AM | 3 | 8 | 1 | 0 | 0 | **50** | 3 | 0 | 2 | 2 | 0 | 1 | **8** | 1 | **622** |
| Hourly Total | 29 | 16 | 7 | 0 | 3 | **88** | 3 | 2 | 29 | 10 | 0 | 5 | **69** | 2 | **5789** |
| 9:00AM | 0 | 0 | 0 | 0 | 0 | **4** | 0 | 0 | 0 | 0 | 0 | 0 | **4** | 0 | **5** |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | **4** | 0 | 0 | 0 | 0 | 0 | 0 | **4** | 0 | **5** |
| 4:00PM | 34 | 3 | 1 | 0 | 6 | **66** | 2 | 1 | 4 | 6 | 0 | 5 | **59** | 0 | **820** |
| 4:15PM | 16 | 1 | 5 | 0 | 1 | **02** | 1 | 0 | 1 | 1 | 0 | 3 | **8** | 0 | **843** |
| 4:30PM | 39 | 8 | 0 | 0 | 5 | **80** | 0 | 0 | 3 | 11 | 0 | 4 | **57** | 0 | **941** |
| 4:45PM | 28 | 3 | 6 | 0 | 2 | **23** | 0 | 0 | 4 | 3 | 0 | 3 | **54** | 0 | **802** |
| Hourly Total | 117 | 15 | 12 | 0 | 14 | **587** | 3 | 1 | 12 | 21 | 0 | 15 | **63** | 0 | **0515** |
| 5:00PM | 24 | 4 | 3 | 0 | 7 | **27** | 2 | 0 | 5 | 3 | 0 | 3 | **55** | 0 | **823** |
| 5:15PM | 17 | 4 | 2 | 0 | 1 | **06** | 0 | 0 | 4 | 4 | 0 | 4 | **50** | 0 | **853** |
| 5:30PM | 9 | 0 | 0 | 0 | 3 | **50** | 2 | 0 | 2 | 3 | 0 | 4 | **3** | 0 | **609** |
| 5:45PM | 6 | 5 | 2 | 0 | 1 | **56** | 0 | 0 | 1 | 1 | 0 | 2 | **6** | 0 | **282** |
| Hourly Total | 56 | 13 | 7 | 0 | 12 | **77** | 4 | 0 | 12 | 11 | 0 | 13 | **29** | 0 | **5721** |
| **Total** | 225 | 54 | 29 | 0 | 36 | **266** | 12 | 3 | 65 | 51 | 0 | 36 | **588** | 3 | **1933** |
| **% Approach** | 65.4% | 15.7% | 8.4% | 0% | 10.5% | - | - | 1.9% | 41.9% | 32.9% | 0% | 23.2% | - | - | - |
| **% Total** | 2.9% | 0.7% | 0.4% | 0% | 0.5% | **6.8%** | - | 0% | 0.8% | 0.7% | 0% | 0.5% | **0.4%** | - | - |
| **Lights** | 220 | 46 | 29 | 0 | 36 | **225** | - | 3 | 54 | 49 | 0 | 34 | **564** | - | 7371 |
| **% Lights** | 97.8% | 85.2% | 100% | 0% | 100% | **39.0%** | - | 100% | 83.1% | 96.1% | 0% | 94.4% | **34.2%** | - | 95.7% |
| **Articulated Trucks and Single-Unit Trucks** | 5 | 1 | 0 | 0 | 0 | **9** | - | 0 | 4 | 2 | 0 | 2 | **7** | - | 272 |
| **% Articulated Trucks and Single-Unit Trucks** | 2.2% | 1.9% | 0% | 0% | 0% | **5.1%** | - | 0% | 6.2% | 3.9% | 0% | 5.6% | **8.0%** | - | 3.5% |
| **Buses** | 0 | 7 | 0 | 0 | 0 | **1** | - | 0 | 7 | 0 | 0 | 0 | **1** | - | 56 |
| **% Buses** | 0% | 13.0% | 0% | 0% | 0% | **0.4%** | - | 0% | 10.8% | 0% | 0% | 0% | **6.8%** | - | 0.7% |
| **Bicycles on Road** | 0 | 0 | 0 | 0 | 0 | **4** | - | 0 | 0 | 0 | 0 | 0 | **4** | - | 0 |
| **% Bicycles on Road** | 0% | 0% | 0% | 0% | 0% | **4%** | - | 0% | 0% | 0% | 0% | 0% | **4%** | - | 0% |
| Pedestrians | - | - | - | - | - | - | 11 | - | - | - | - | - | - | 3 | |
| % Pedestrians | - | - | - | - | - | - | 91.7% | - | - | - | - | - | - | 100% | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 8.3% | - | - | - | - | - | - | 0% | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

**10. Broadway and Oriskany/Liberty - TMC**
Wed Jul 18, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549091, Location: 43.104106, -75.231962, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US






**10. Broadway and Oriskany/Liberty - TMC**
Wed Jul 18, 2018
AM Peak (7:30AM - 8:30AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549091, Location: 43.104106, -75.231962, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Oriskany/Liberty | | | | | | | Oriskany/Liberty | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Eastbound | | | | | | | Westbound | | | | | | |
| Time | L | T | R | U | RR | App | Ped* | L | T | R | U | RR | App | Ped* |
| 2018-07-18 7:30AM | 13 | 220 | 7 | 0 | 0 | **240** | 0 | 4 | 228 | 0 | 0 | 0 | **232** | 0 |
| 7:45AM | 14 | 249 | 6 | 0 | 1 | **270** | 0 | 9 | 282 | 0 | 0 | 0 | **291** | 0 |
| 8:00AM | 15 | 216 | 17 | 1 | 0 | **249** | 0 | 10 | 205 | 0 | 0 | 0 | **215** | 0 |
| 8:15AM | 18 | 201 | 11 | 0 | 3 | **233** | 0 | 9 | 197 | 0 | 0 | 0 | **206** | 0 |
| **Total** | 60 | 886 | 41 | 1 | 4 | **992** | 0 | 32 | 912 | 0 | 0 | 0 | **944** | 0 |
| **% Approach** | 6.0% | 89.3% | 4.1% | 0.1% | 0.4% | - | - | 3.4% | 96.6% | 0% | 0% | 0% | - | - |
| **% Total** | 2.9% | 43.5% | 2.0% | 0% | 0.2% | **48.7%** | - | 1.6% | 44.7% | 0% | 0% | 0% | **46.3%** | - |
| **PHF** | 0.833 | 0.890 | 0.603 | 0.250 | 0.333 | **0.919** | - | 0.800 | 0.809 | - | - | - | **0.811** | - |
| **Lights** | 58 | 838 | 40 | 1 | 4 | **941** | - | 31 | 857 | 0 | 0 | 0 | **888** | - |
| **% Lights** | 96.7% | 94.6% | 97.6% | 100% | 100% | **94.9%** | - | 96.9% | 94.0% | 0% | 0% | 0% | **94.1%** | - |
| **Articulated Trucks and Single-Unit Trucks** | 1 | 41 | 1 | 0 | 0 | **43** | - | 0 | 46 | 0 | 0 | 0 | **46** | - |
| **% Articulated Trucks and Single-Unit Trucks** | 1.7% | 4.6% | 2.4% | 0% | 0% | **4.3%** | - | 0% | 5.0% | 0% | 0% | 0% | **4.9%** | - |
| **Buses** | 1 | 7 | 0 | 0 | 0 | **8** | - | 1 | 9 | 0 | 0 | 0 | **10** | - |
| **% Buses** | 1.7% | 0.8% | 0% | 0% | 0% | **0.8%** | - | 3.1% | 1.0% | 0% | 0% | 0% | **1.1%** | - |
| **Bicycles on Road** | 0 | 0 | 0 | 0 | 0 | **0** | - | 0 | 0 | 0 | 0 | 0 | **0** | - |
| **% Bicycles on Road** | 0% | 0% | 0% | 0% | 0% | **0%** | - | 0% | 0% | 0% | 0% | 0% | **0%** | - |
| Pedestrians | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

**10. Broadway and Oriskany/Liberty - TMC**
Wed Jul 18, 2018
AM Peak (7:30AM - 8:30AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549091, Location: 43.104106, -75.231962, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Broadway | | | | | | | Broadway | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Northbound | | | | | | | Southbound | | | | | | | |
| Time | L | T | R | U | RR | App | Ped* | L | T | R | U | RR | App | Ped* | Int |
| 2018-07-18 7:30AM | 6 | 2 | 0 | 0 | 3 | **22** | 0 | 0 | 6 | 3 | 0 | 1 | **25** | 1 | **174** |
| 7:45AM | 7 | 4 | 3 | 0 | 1 | **28** | 0 | 0 | 2 | 3 | 0 | 1 | **0** | 0 | **836** |
| 8:00AM | 9 | 2 | 2 | 0 | 1 | **21** | 0 | 1 | 6 | 1 | 0 | 1 | **7** | 0 | **139** |
| 8:15AM | 10 | 5 | 2 | 0 | 1 | **23** | 0 | 0 | 11 | 5 | 0 | 3 | **27** | 0 | **190** |
| **Total** | 32 | 13 | 7 | 0 | 6 | **83** | 0 | 1 | 25 | 12 | 0 | 6 | **11** | 1 | **6543** |
| **% Approach** | 55.2% | 22.4% | 12.1% | 0% | 10.3% | - | - | 2.3% | 56.8% | 27.3% | 0% | 13.6% | - | - | - |
| **% Total** | 1.6% | 0.6% | 0.3% | 0% | 0.3% | **6.3%** | - | 0% | 1.2% | 0.6% | 0% | 0.3% | **6.6%** | - | - |
| **PHF** | 0.800 | 0.650 | 0.583 | - | 0.500 | **5.350** | - | 0.250 | 0.568 | 0.600 | - | 0.500 | **5.897** | - | 0.875 |
| **Lights** | 30 | 11 | 7 | 0 | 6 | **81** | - | 1 | 20 | 11 | 0 | 4 | **40** | - | 1919 |
| **% Lights** | 93.8% | 84.6% | 100% | 0% | 100% | **74.2%** | - | 100% | 80.0% | 91.7% | 0% | 66.7% | **32.3%** | - | 94.2% |
| **Articulated Trucks and Single-Unit Trucks** | 2 | 0 | 0 | 0 | 0 | **6** | - | 0 | 3 | 1 | 0 | 2 | **0** | - | 97 |
| **% Articulated Trucks and Single-Unit Trucks** | 6.3% | 0% | 0% | 0% | 0% | **4.1%** | - | 0% | 12.0% | 8.3% | 0% | 33.3% | **24.0%** | - | 4.8% |
| **Buses** | 0 | 2 | 0 | 0 | 0 | **6** | - | 0 | 2 | 0 | 0 | 0 | **6** | - | 22 |
| **% Buses** | 0% | 15.4% | 0% | 0% | 0% | **4.1%** | - | 0% | 8.0% | 0% | 0% | 0% | **1.8%** | - | 1.1% |
| **Bicycles on Road** | 0 | 0 | 0 | 0 | 0 | **5** | - | 0 | 0 | 0 | 0 | 0 | **5** | - | 0 |
| **% Bicycles on Road** | 0% | 0% | 0% | 0% | 0% | **5%** | - | 0% | 0% | 0% | 0% | 0% | **5%** | - | 0% |
| Pedestrians | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 1 | |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | 100% | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | 0% | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn



**10. Broadway and Oriskany/Liberty - TMC**
Wed Jul 18, 2018
AM Peak (7:30AM - 8:30AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549091, Location: 43.104106, -75.231962, Site Code: Utica, New York

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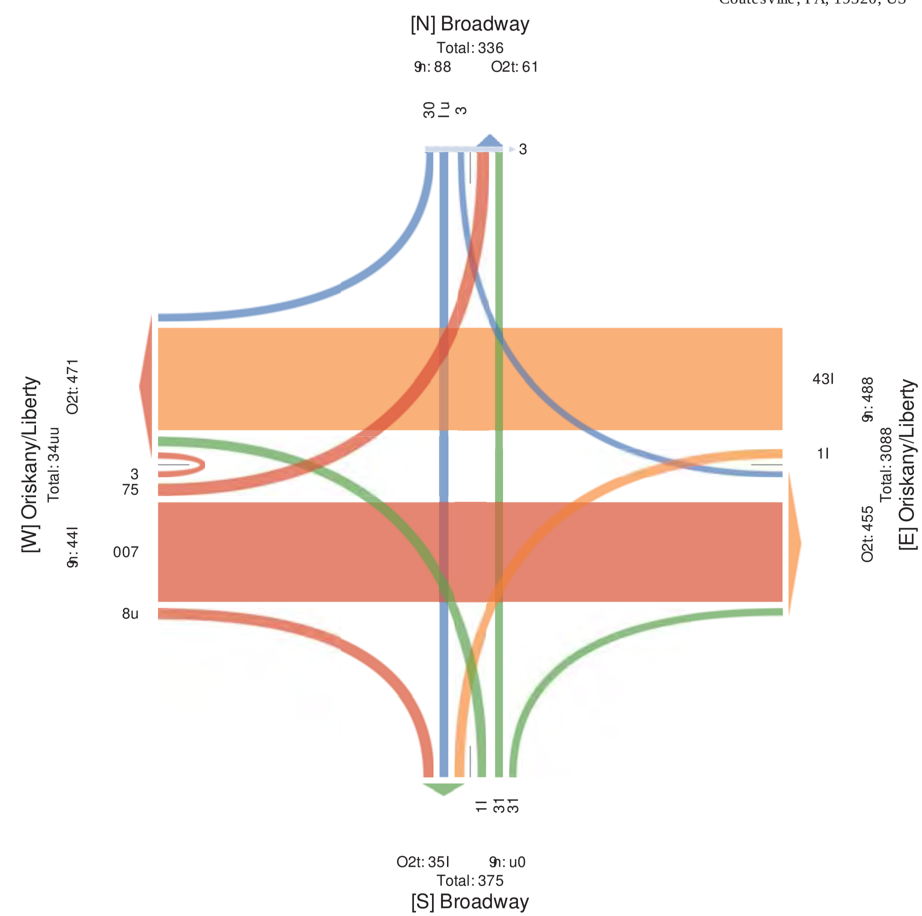
184 Baker Road,
Coatesville, PA, 19320, US



## 10. Broadway and Oriskany/Liberty - TMC

Wed Jul 18, 2018
Forced Peak (7P:  45P:  A
Mll - la))e) (CsLi g), Mrgsculaged h ruck) at d Tst Lle4n t sgh ruck), Su)e), Pede)grsat ), SscUcle) ot Board, SscUcle) ot - ro))y alkA
Mll : oRewet g)
vmI 57D0D1, Cocagsot I 7931 0710. , 4653291D. 2, Tsge - ode I n gsca, Ney York

ProRsded bUI h rs4Tgage h raffsc maga, vt c3
187 Saker Boad,
- oage) Rslle, PM, 1D920, n T

| CeL msrecgsot | Ors) kat UCsbergU Ea) gbout d | | | | | | | Ors) kat UCsbergU We) gbout d | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| h swe | C | h | B | n | BB | App | Ped* | C | h | B | n | BB | App | Ped* |
| 20184064l8 7I00P: | . | 298 | 2 | 9 | 0 | **240** | 1 | 7 | 21D | 0 | 0 | 0 | **223** | 0 |
| 7I15P: | 5 | 258 | 9 | 0 | 1 | **279** | 0 | 7 | 210 | 0 | 0 | 0 | **214** | 0 |
| 7I90P: | 12 | 2. 9 | 6 | 1 | 0 | **253** | 0 | 9 | 251 | 0 | 0 | 0 | **264** | 0 |
| 7I75P: | 6 | 279 | 5 | 0 | 0 | **266** | 0 | 1 | 218 | 0 | 0 | 0 | **210** | 0 |
| **Total** | 90 | 1002 | 16 | 7 | 1 | **1%64** | 1 | 12 | 8I8 | 0 | 0 | 0 | **01%** | 0 |
| **rAppcoah-** | 23.8% | D53.1% | 13 % | 0.37% | 0.31% | **8** | 4 | 13.9% | D83.6% | 0% | 0% | 0% | **8** | 4 |
| **rTotal** | 13.7% | 7. 32% | 0.38% | 0.32% | 0% | **45.6** | 4 | 03. % | 713.7% | 0% | 0% | 0% | **41.0** | 4 |
| **PHF** | 03. 25 | 03D52 | 03. 06 | 03999 | 03250 | **%031** | 4 | 03650 | 03.8D7 | 4 | 4 | 4 | **%507** | 4 |
| **Lig- ts** | 90 | D68 | 1. | 7 | 1 | **1%20** | 4 | 12 | 8. 8 | 0 | 0 | 0 | **55%** | 4 |
| **rLig- ts** | 100% | D63. % | D73.1% | 100% | 100% | **09.7** | 4 | 100% | D. 36% | 0% | 0% | 0% | **07.9** | 4 |
| **ActihulatedrTcuhksrandrSingle8UnitrTcuhks** | 0 | 1D | 1 | 0 | 0 | **2%** | 4 | 0 | 90 | 0 | 0 | 0 | **3%** | 4 |
| **rActihulatedrTcuhksrandrSingle8UnitrTcuhks** | 0% | 13D% | 53D% | 0% | 0% | **1.0** | 4 | 0% | 93.9% | 0% | 0% | 0% | **3.3** | 4 |
| **Buses** | 0 | 5 | 0 | 0 | 0 | **6** | 4 | 0 | 0 | 0 | 0 | 0 | **%** | 4 |
| **rBuses** | 0% | 0.35% | 0% | 0% | 0% | **%6** | 4 | 0% | 0% | 0% | 0% | 0% | **%** | 4 |
| **BihyhlesronrRoad** | 0 | 0 | 0 | 0 | 0 | **%** | 4 | 0 | 0 | 0 | 0 | 0 | **%** | 4 |
| **rBihyhlesronrRoad** | 0% | 0% | 0% | 0% | 0% | **%** | 4 | 0% | 0% | 0% | 0% | 0% | **%** | 4 |
| Pede)grsat ) | 4 | 4 | 4 | 4 | 4 | 4 | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 0 |
| % Pede)grsat ) | 4 | 4 | 4 | 4 | 4 | 4 | 100% | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| SscUcle) ot - ro))y alk | 4 | 4 | 4 | 4 | 4 | 4 | 0 | 4 | 4 | 4 | 4 | 4 | 4 | 0 |
| % SscUcle) ot - ro))y alk | 4 | 4 | 4 | 4 | 4 | 4 | 0% | 4 | 4 | 4 | 4 | 4 | 4 | 4 |

*Pede)grsat ) at d SscUcle) ot - ro))y alk3CI Cefg BI BsLi g BBI BsLi got red, h I h i ru, n I n 4h urt



## 10. Broadway and Oriskany/Liberty - TMC

Wed Jul 18, 2018
Forced Peak (7P:  45P:  A
Mll - la))e) (CsLi g), Mrgsculaged h ruck) at d Tst Lle4n t sgh ruck), Su)e), Pede)grsat ), SscUcle) ot Board, SscUcle) ot - ro))y alkA
Mll : oRewet g)
vmI 57D0D1, Cocagsot I 7931 0710. , 4653291D. 2, Tsge - ode I n gsca, Ney York

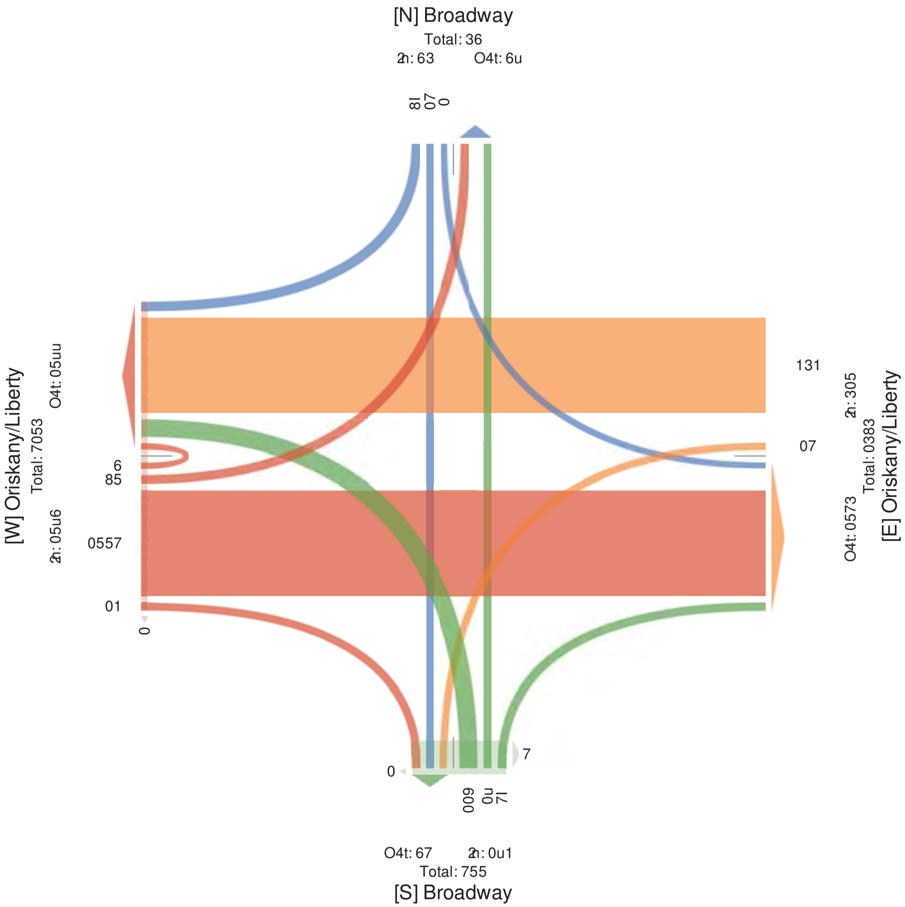
ProRsded bUI h rs4Tgage h raffsc maga, vt c3
187 Saker Boad,
- oage) Rslle, PM, 1D920, n T

| CeL msrecgsot | SroadyaU Norgi bout d | | | | | | | SroadyaU Tougi bout d | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| h swe | C | h | B | n | BB | App | Ped* | C | h | B | n | BB | App | Ped* | Int |
| 20184064l8 7I00P: | 97 | 9 | 1 | 0 | . | **22** | 2 | 1 | 7 | . | 0 | 5 | **51** | 0 | **748** |
| 7I15P: | 1. | 1 | 5 | 0 | 1 | **84** | 1 | 0 | 1 | 1 | 0 | 9 | **7** | 0 | **703** |
| 7I90P: | 9D | 8 | 0 | 0 | 5 | **78** | 0 | 0 | 9 | 11 | 0 | 7 | **56** | 0 | **109** |
| 7I75P: | 28 | 9 | . | 0 | 2 | **43** | 0 | 0 | 7 | 9 | 0 | 9 | **50** | 0 | **784** |
| **Total** | 116 | 15 | 12 | 0 | 17 | **576** | 9 | 1 | 12 | 21 | 0 | 15 | **23** | 0 | **8595** |
| **% Approach** | 673.1% | D3.5% | 63 % | 0% | 83D% | - | 4 | 23.0% | 273.5% | 723D% | 0% | 903 % | - | 4 | 4 |
| **% Total** | 53.7% | 03.6% | 03 % | 0% | 03 % | **9.4%** | 4 | 0% | 03. % | 13.0% | 0% | 03.6% | **8.4%** | 4 | 4 |
| **PHF** | 03650 | 03.7. D | 03500 | 4 | 03589 | **0.910** | 4 | 03250 | 03650 | 03766 | 4 | 03650 | **0.165** | 4 | 03.8D7 |
| **Lights** | 11. | 19 | 12 | 0 | 17 | **577** | 4 | 1 | 11 | 20 | 0 | 15 | **29** | 4 | 2111 |
| **% Lights** | DD3.1% | 8. 36% | 100% | 0% | 100% | **36.5%** | 4 | 100% | D13.6% | D53.2% | 0% | 100% | **37.3%** | 4 | D63.2% |
| **Articulated Trucks and Single-Unit Trucks** | 1 | 0 | 0 | 0 | 0 | **5** | 4 | 0 | 0 | 1 | 0 | 0 | **5** | 4 | 52 |
| **% Articulated Trucks and Single-Unit Trucks** | 03D% | 0% | 0% | 0% | 0% | **0.1%** | 4 | 0% | 0% | 73.8% | 0% | 0% | **8.0%** | 4 | 23.7% |
| **Buses** | 0 | 2 | 0 | 0 | 0 | **8** | 4 | 0 | 1 | 0 | 0 | 0 | **5** | 4 | 8 |
| **% Buses** | 0% | 193.9% | 0% | 0% | 0% | **5.4%** | 4 | 0% | 83.9% | 0% | 0% | 0% | **8.0%** | 4 | 03.7% |
| **Bicycles on Road** | 0 | 0 | 0 | 0 | 0 | **0** | 4 | 0 | 0 | 0 | 0 | 0 | **0** | 4 | 0 |
| **% Bicycles on Road** | 0% | 0% | 0% | 0% | 0% | **0%** | 4 | 0% | 0% | 0% | 0% | 0% | **0%** | 4 | 0% |
| Pede)grsat ) | 4 | 4 | 4 | 4 | 4 | 4 | 9 | 4 | 4 | 4 | 4 | 4 | 4 | 0 | |
| % Pede)grsat ) | 4 | 4 | 4 | 4 | 4 | 4 | 100% | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| SscUcle) ot - ro))y alk | 4 | 4 | 4 | 4 | 4 | 4 | 0 | 4 | 4 | 4 | 4 | 4 | 4 | 0 | |
| % SscUcle) ot - ro))y alk | 4 | 4 | 4 | 4 | 4 | 4 | 0% | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |

*Pede)grsat ) at d SscUcle) ot - ro))y alk3CI Cefg BI BsLi g BBI BsLi got red, h I h i ru, n I n 4h urt

**10. Broadway and Oriskany/Liberty - TMC**
Wed Jul 18, 2018
FLnged t eh( 7At M - 9t M4
Pll 6 lh))e) 7Cas i r), Pmagulhred c nug() hTd kaTs le-S Tar c nug(), Uu)e), t ede) mahT), UagBgle)
LT y Lhd, UagBgle) LT 6 nL))o hl(4
Pll MLRewe Tr)
vmI 9AD0D1, CLghraLTI A: 510A103, -. 952: 1D32, kare 6 Lde I S ragh, Neo YLn(

t nLRaded bBIc makrhre c nhffag mhrh, vTg5
18AUh(eny Lhd,
6 Lhre) Ralle, t P, 1D 20, Sk






**10. Broadway and Oriskany/Liberty - TMC**
Wed Jul 18, 2018
PM Peak (4:30PM - 5:30PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549091, Location: 43.104106, -75.231962, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Oriskany/Liberty | | | | | | | Oriskany/Liberty | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Eastbound | | | | | | | Westbound | | | | | | |
| Time | L | T | R | U | RR | App | Ped* | L | T | R | U | RR | App | Ped* |
| 2018-07-18 4:30PM | 12 | 263 | 7 | 1 | 0 | **240** | 0 | 3 | 251 | 0 | 0 | 0 | **237** | 0 |
| 4:45PM | 7 | 243 | 5 | 0 | 0 | **233** | 0 | 1 | 218 | 0 | 0 | 0 | **291** | 0 |
| 5:00PM | 4 | 266 | 6 | 1 | 0 | **255** | 1 | 2 | 210 | 1 | 0 | 0 | **290** | 0 |
| 5:15PM | 9 | 281 | 2 | 0 | 0 | **212** | 0 | 1 | 189 | 1 | 0 | 0 | **919** | 0 |
| **6 Tot a** | 32 | 1053 | 20 | 2 | 0 | **991 5** | 1 | 7 | 868 | 2 | 0 | 0 | **455** | 0 |
| **% ApprTt ch** | 2.9% | 95.1% | 1.8% | 0.2% | 0% | - | - | 0.8% | 99.0% | 0.2% | 0% | 0% | - | - |
| **% 6 Tot a** | 1.5% | 48.1% | 0.9% | 0.1% | 0% | **31 8 %** | - | 0.3% | 39.7% | 0.1% | 0% | 0% | **71 89%** | - |
| **PHF** | 0.667 | 0.937 | 0.714 | 0.500 | - | **1 8174** | - | 0.583 | 0.865 | 0.500 | - | - | **1 84. 0** | - |
| **Lighos** | 32 | 1035 | 19 | 2 | 0 | **91 44** | - | 7 | 847 | 2 | 0 | 0 | **43.** | - |
| **% Lighos** | 100% | 98.3% | 95.0% | 100% | 0% | **1480%** | - | 100% | 97.6% | 100% | 0% | 0% | **158 %** | - |
| **Arcicuat ced 6 rucks t nd Singæ-Unio6 rucks** | 0 | 16 | 1 | 0 | 0 | **95** | - | 0 | 20 | 0 | 0 | 0 | **21** | - |
| **% Arcicuat ced 6 rucks t nd Singæ-Unio6 rucks** | 0% | 1.5% | 5.0% | 0% | 0% | **983%** | - | 0% | 2.3% | 0% | 0% | 0% | **280%** | - |
| **Buses** | 0 | 2 | 0 | 0 | 0 | **2** | - | 0 | 1 | 0 | 0 | 0 | **9** | - |
| **% Buses** | 0% | 0.2% | 0% | 0% | 0% | **1 82%** | - | 0% | 0.1% | 0% | 0% | 0% | **1 89%** | - |
| **Bicycæs Tn RTt d** | 0 | 0 | 0 | 0 | 0 | **1** | - | 0 | 0 | 0 | 0 | 0 | **1** | - |
| **% Bicycæs Tn RTt d** | 0% | 0% | 0% | 0% | 0% | **1 %** | - | 0% | 0% | 0% | 0% | 0% | **1 %** | - |
| Pedestrians | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 0 |
| % Pedestrians | - | - | - | - | - | - | 100% | - | - | - | - | - | - | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 0% | - | - | - | - | - | - | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

**10. Broadway and Oriskany/Liberty - TMC**
Wed Jul 18, 2018
PM Peak (4:30PM - 5:30PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549091, Location: 43.104106, -75.231962, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Broadway | | | | | | | Broadway | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Northbound | | | | | | | Southbound | | | | | | | |
| Time | L | T | R | U | RR | App | Ped* | L | T | R | U | RR | App | Ped* | Int |
| 2018-07-18 4:30PM | 39 | 8 | 0 | 0 | 5 | **25** | 0 | 0 | 3 | 11 | 0 | 4 | **17** | 0 | **480** |
| 4:45PM | 28 | 3 | 6 | 0 | 2 | **36** | 0 | 0 | 4 | 3 | 0 | 3 | **18** | 0 | **253** |
| 5:00PM | 24 | 4 | 3 | 0 | 7 | **37** | 2 | 0 | 5 | 3 | 0 | 3 | **11** | 0 | **236** |
| 5:15PM | 17 | 4 | 2 | 0 | 1 | **59** | 0 | 0 | 4 | 4 | 0 | 4 | **15** | 0 | **216** |
| **Total** | 108 | 19 | 11 | 0 | 15 | **123** | 2 | 0 | 16 | 21 | 0 | 14 | **21** | 0 | **5177** |
| **% Approach** | 70.6% | 12.4% | 7.2% | 0% | 9.8% | - | - | 0% | 31.4% | 41.2% | 0% | 27.5% | - | - | - |
| **% Total** | 4.9% | 0.9% | 0.5% | 0% | 0.7% | **0.8%** | - | 0% | 0.7% | 1.0% | 0% | 0.6% | **5.3%** | - | - |
| **PHF** | 0.692 | 0.594 | 0.458 | - | 0.536 | **8.034** | - | - | 0.800 | 0.477 | - | 0.875 | **8.087** | - | 0.901 |
| **Lights** | 108 | 17 | 11 | 0 | 15 | **121** | - | 0 | 14 | 20 | 0 | 14 | **97** | - | 2143 |
| **% Lights** | 100% | 89.5% | 100% | 0% | 100% | **67.0%** | - | 0% | 87.5% | 95.2% | 0% | 100% | **69.1%** | - | 97.9% |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 0 | 0 | 0 | 0 | **8** | - | 0 | 0 | 1 | 0 | 0 | **1** | - | 38 |
| **% Articulated Trucks and Single-Unit Trucks** | 0% | 0% | 0% | 0% | 0% | **8%** | - | 0% | 0% | 4.8% | 0% | 0% | **5.8%** | - | 1.7% |
| **Buses** | 0 | 2 | 0 | 0 | 0 | **5** | - | 0 | 2 | 0 | 0 | 0 | **5** | - | 7 |
| **% Buses** | 0% | 10.5% | 0% | 0% | 0% | **1.3%** | - | 0% | 12.5% | 0% | 0% | 0% | **3.6%** | - | 0.3% |
| **Bicycles on Road** | 0 | 0 | 0 | 0 | 0 | **8** | - | 0 | 0 | 0 | 0 | 0 | **8** | - | 0 |
| **% Bicycles on Road** | 0% | 0% | 0% | 0% | 0% | **8%** | - | 0% | 0% | 0% | 0% | 0% | **8%** | - | 0% |
| Pedestrians | - | - | - | - | - | - | 2 | - | - | - | - | - | - | 0 | |
| % Pedestrians | - | - | - | - | - | - | 100% | - | - | - | - | - | - | - | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 0% | - | - | - | - | - | - | - | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn



**10. Broadway and Oriskany/Liberty - TMC**
Wed Jul 18, 2018
PM Peak (4-50PM ) O-50PMv ) r Heoall Peak ACuo
s ll Llaii ei (glt cTi, s oTnulaTed Sounki aUd BtUt le)y UtTS ounki , Rui ei , Pedei TohUi , Rlnwnlei CUmCad, Rlnwnlei CULoCi i I alkv
s ll MCHe De UTi
:9 -O43031, gCnaTiCU-45.104107, )6O251372, BhTe LCde-y Tha, NeI YCok

PoCHded bw-S oh)BTaTe S caffln
9 aTa, : Un.
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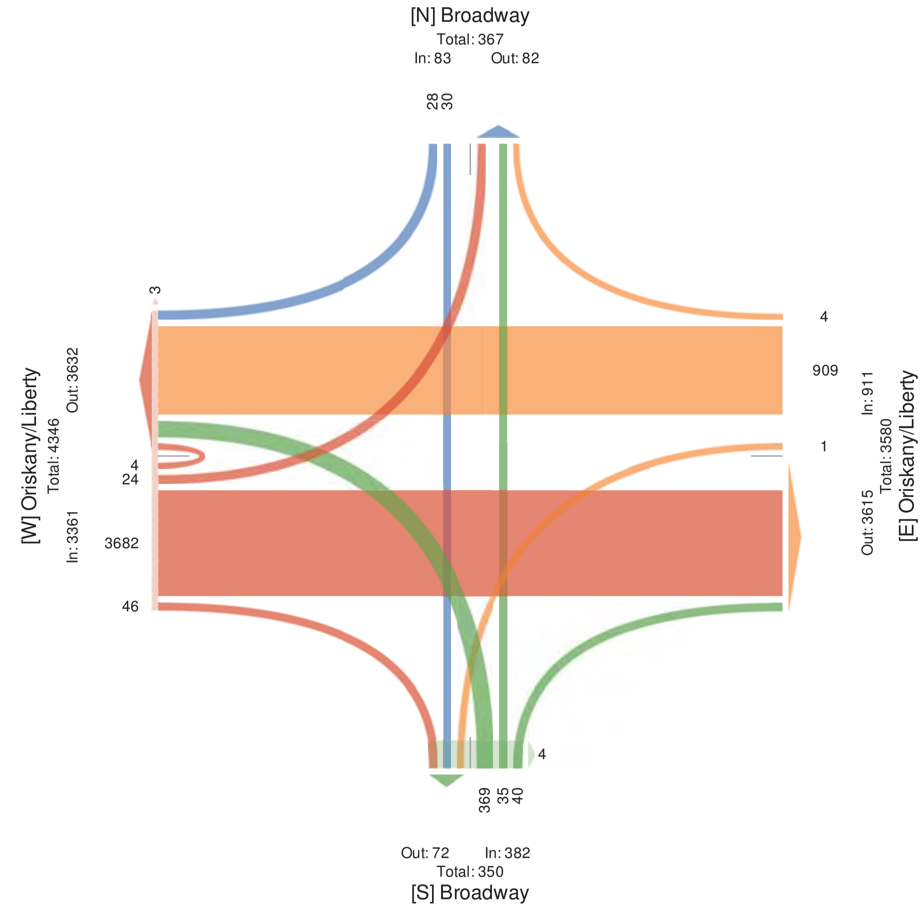
LCaTei Hlle, Ps , 13520, y B






Revised A - 56

## 11. Broadway and Lafayette - TMC

Wed Jul 18, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 548864, Location: 43.10297, -75.232935, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Lafayette St | | | | | | | Lafayette St | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Eastbound | | | | | | | Westbound | | | | | | |
| Time | L | T | R | U | RR | **App** | Ped* | L | T | R | U | RR | **App** | Ped* |
| 2018-07-18 7:00AM | 3 | 14 | 0 | 0 | 0 | **15** | 0 | 1 | 14 | 2 | 0 | 0 | **15** | 0 |
| 7:15AM | 0 | 13 | 2 | 0 | 0 | **17** | 2 | 8 | 28 | 2 | 0 | 0 | **20** | 0 |
| 7:30AM | 1 | 16 | 2 | 0 | 1 | **43** | 0 | 6 | 26 | 2 | 0 | 0 | **29** | 0 |
| 7:45AM | 2 | 23 | 3 | 0 | 0 | **40** | 1 | 8 | 41 | 2 | 0 | 0 | **71** | 0 |
| Hourly Total | 6 | 66 | 7 | 0 | 1 | **03** | 3 | 23 | 109 | 8 | 0 | 0 | **193** | 0 |
| 8:00AM | 4 | 28 | 9 | 0 | 0 | **91** | 2 | 8 | 31 | 3 | 0 | 0 | **94** | 0 |
| 8:15AM | 5 | 30 | 4 | 0 | 0 | **28** | 0 | 10 | 30 | 2 | 0 | 1 | **92** | 0 |
| 8:30AM | 3 | 26 | 3 | 0 | 1 | **22** | 0 | 6 | 29 | 3 | 0 | 0 | **20** | 0 |
| 8:45AM | 3 | 24 | 5 | 0 | 1 | **22** | 2 | 7 | 43 | 3 | 0 | 1 | **79** | 1 |
| Hourly Total | 15 | 108 | 21 | 0 | 2 | **196** | 4 | 31 | 133 | 11 | 0 | 2 | **155** | 1 |
| 9:00AM | 0 | 0 | 0 | 0 | 0 | **3** | 0 | 0 | 0 | 0 | 0 | 0 | **3** | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | **3** | 0 | 0 | 0 | 0 | 0 | 0 | **3** | 0 |
| 4:00PM | 3 | 32 | 1 | 0 | 0 | **26** | 0 | 5 | 46 | 6 | 0 | 3 | **63** | 0 |
| 4:15PM | 1 | 29 | 0 | 0 | 0 | **23** | 0 | 3 | 63 | 4 | 0 | 0 | **53** | 2 |
| 4:30PM | 2 | 32 | 0 | 0 | 0 | **29** | 0 | 7 | 58 | 4 | 0 | 2 | **51** | 0 |
| 4:45PM | 2 | 32 | 3 | 0 | 0 | **25** | 0 | 3 | 45 | 6 | 0 | 1 | **77** | 0 |
| Hourly Total | 8 | 125 | 4 | 0 | 0 | **125** | 0 | 18 | 212 | 20 | 0 | 6 | **476** | 2 |
| 5:00PM | 3 | 26 | 0 | 0 | 0 | **48** | 1 | 2 | 35 | 3 | 0 | 2 | **94** | 0 |
| 5:15PM | 0 | 15 | 1 | 1 | 1 | **10** | 0 | 6 | 37 | 3 | 0 | 0 | **96** | 0 |
| 5:30PM | 0 | 21 | 0 | 0 | 1 | **44** | 0 | 4 | 30 | 2 | 0 | 0 | **26** | 0 |
| 5:45PM | 1 | 13 | 0 | 0 | 0 | **19** | 0 | 3 | 21 | 0 | 0 | 2 | **46** | 0 |
| Hourly Total | 4 | 75 | 1 | 1 | 2 | **02** | 1 | 15 | 123 | 8 | 0 | 4 | **173** | 0 |
| 6:00PM | 0 | 0 | 0 | 0 | 0 | **3** | 0 | 0 | 0 | 0 | 0 | 0 | **3** | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | **3** | 0 | 0 | 0 | 0 | 0 | 0 | **3** | 0 |
| **Total** | 33 | 374 | 33 | 1 | 5 | **996** | 8 | 87 | 577 | 47 | 0 | 12 | **542** | 3 |
| **% Approach** | 7.4% | 83.9% | 7.4% | 0.2% | 1.1% | - | - | 12.0% | 79.8% | 6.5% | 0% | 1.7% | - | - |
| **% Total** | 1.9% | 21.0% | 1.9% | 0.1% | 0.3% | **47.1%** | - | 4.9% | 32.5% | 2.6% | 0% | 0.7% | **93.5%** | - |
| **Lights** | 30 | 363 | 32 | 1 | 5 | **921** | - | 74 | 554 | 42 | 0 | 12 | **604** | - |
| **% Lights** | 90.9% | 97.1% | 97.0% | 100% | 100% | **86.6%** | - | 85.1% | 96.0% | 89.4% | 0% | 100% | **89.2%** | - |
| **Articulated Trucks and Single-Unit Trucks** | 3 | 4 | 0 | 0 | 0 | **5** | - | 1 | 12 | 1 | 0 | 0 | **19** | - |
| **% Articulated Trucks and Single-Unit Trucks** | 9.1% | 1.1% | 0% | 0% | 0% | **1.6%** | - | 1.1% | 2.1% | 2.1% | 0% | 0% | **1.8%** | - |
| **Buses** | 0 | 2 | 1 | 0 | 0 | **2** | - | 12 | 7 | 3 | 0 | 0 | **44** | - |
| **% Buses** | 0% | 0.5% | 3.0% | 0% | 0% | **3.5%** | - | 13.8% | 1.2% | 6.4% | 0% | 0% | **2.3%** | - |
| **Bicycles on Road** | 0 | 5 | 0 | 0 | 0 | **7** | - | 0 | 4 | 1 | 0 | 0 | **7** | - |
| **% Bicycles on Road** | 0% | 1.3% | 0% | 0% | 0% | **1.1%** | - | 0% | 0.7% | 2.1% | 0% | 0% | **3.5%** | - |
| Pedestrians | - | - | - | - | - | - | 8 | - | - | - | - | - | - | 3 |
| % Pedestrians | - | - | - | - | - | - | 100% | - | - | - | - | - | - | 100% |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 0% | - | - | - | - | - | - | 0% |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn



## 11. Broadway and Lafayette - TMC

Wed Jul 18, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 548864, Location: 43.10297, -75.232935, Site Code: Utica, New York

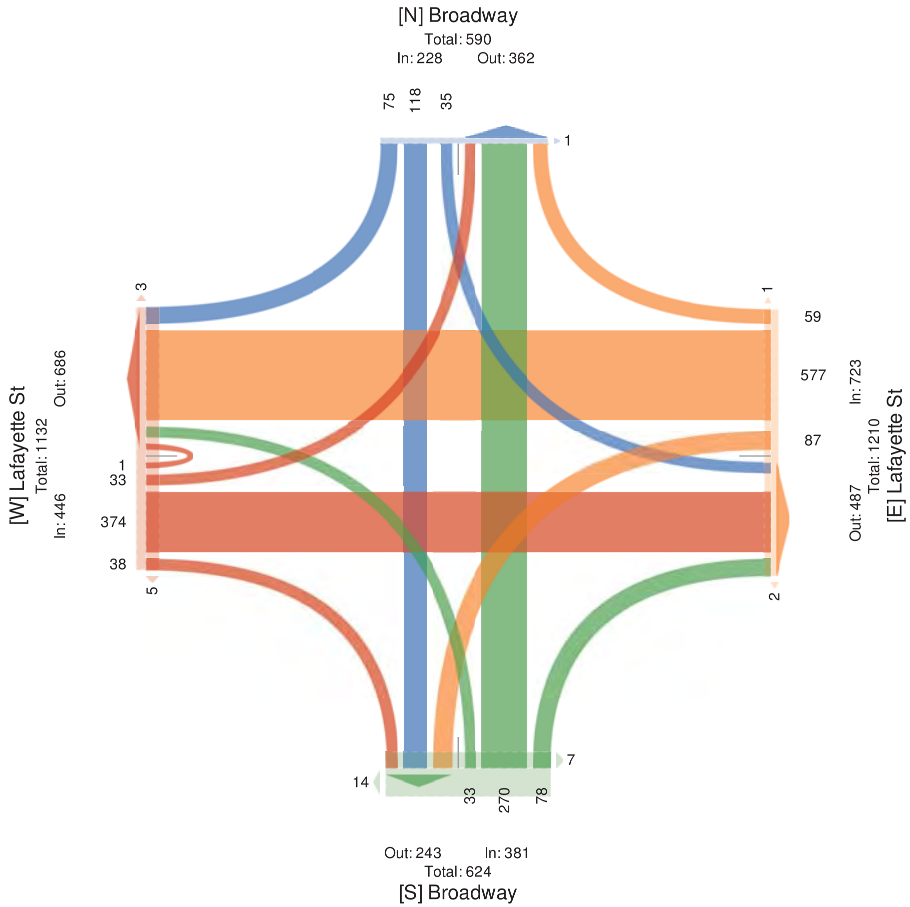
Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Broadway | | | | | | | Broadway | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Northbound | | | | | | | Southbound | | | | | | | |
| Time | L | T | R | U | RR | **App** | Ped* | L | T | R | U | RR | **App** | Ped* | **Int** |
| 2018-07-18 7:00AM | 2 | 3 | 1 | 0 | 0 | **1** | 0 | 1 | 5 | 3 | 0 | 0 | **6** | 0 | **26** |
| 7:15AM | 1 | 7 | 2 | 0 | 0 | **85** | 0 | 0 | 5 | 2 | 0 | 2 | **6** | 0 | **43** |
| 7:30AM | 1 | 9 | 3 | 0 | 1 | **82** | 1 | 5 | 6 | 3 | 0 | 3 | **84** | 0 | **97** |
| 7:45AM | 4 | 14 | 2 | 0 | 2 | **33** | 4 | 1 | 9 | 4 | 0 | 2 | **81** | 0 | **884** |
| Hourly Total | 8 | 33 | 8 | 0 | 3 | **73** | 5 | 7 | 25 | 12 | 0 | 7 | **78** | 0 | **030** |
| 8:00AM | 3 | 13 | 3 | 0 | 1 | **35** | 0 | 5 | 16 | 5 | 0 | 2 | **39** | 1 | **808** |
| 8:15AM | 3 | 12 | 2 | 0 | 1 | **89** | 1 | 2 | 18 | 6 | 0 | 1 | **34** | 0 | **834** |
| 8:30AM | 1 | 12 | 3 | 0 | 1 | **84** | 2 | 2 | 11 | 5 | 0 | 0 | **89** | 0 | **851** |
| 8:45AM | 2 | 13 | 2 | 0 | 0 | **84** | 0 | 3 | 6 | 0 | 0 | 5 | **82** | 0 | **889** |
| Hourly Total | 9 | 50 | 10 | 0 | 3 | **43** | 3 | 12 | 51 | 16 | 0 | 8 | **94** | 1 | **293** |
| 9:00AM | 0 | 0 | 0 | 0 | 0 | **5** | 0 | 0 | 0 | 0 | 0 | 0 | **5** | 0 | **5** |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | **5** | 0 | 0 | 0 | 0 | 0 | 0 | **5** | 0 | **5** |
| 4:00PM | 2 | 35 | 4 | 0 | 1 | **23** | 2 | 1 | 8 | 6 | 0 | 1 | **81** | 0 | **872** |
| 4:15PM | 1 | 19 | 3 | 0 | 3 | **31** | 2 | 3 | 8 | 3 | 0 | 0 | **82** | 0 | **825** |
| 4:30PM | 5 | 47 | 16 | 0 | 1 | **16** | 2 | 4 | 7 | 5 | 0 | 2 | **89** | 0 | **863** |
| 4:45PM | 2 | 21 | 7 | 0 | 2 | **03** | 1 | 0 | 5 | 2 | 0 | 1 | **9** | 0 | **803** |
| Hourly Total | 10 | 122 | 30 | 0 | 7 | **816** | 7 | 8 | 28 | 16 | 0 | 4 | **71** | 0 | **189** |
| 5:00PM | 3 | 25 | 4 | 0 | 0 | **03** | 1 | 5 | 5 | 4 | 0 | 3 | **84** | 0 | **835** |
| 5:15PM | 0 | 18 | 5 | 0 | 0 | **30** | 2 | 1 | 4 | 1 | 0 | 0 | **1** | 0 | **60** |
| 5:30PM | 0 | 10 | 3 | 0 | 0 | **80** | 3 | 2 | 2 | 0 | 0 | 1 | **7** | 0 | **41** |
| 5:45PM | 3 | 12 | 4 | 0 | 1 | **35** | 0 | 0 | 3 | 0 | 0 | 3 | **1** | 0 | **11** |
| Hourly Total | 6 | 65 | 16 | 0 | 1 | **99** | 6 | 8 | 14 | 5 | 0 | 7 | **02** | 0 | **077** |
| 6:00PM | 0 | 0 | 0 | 0 | 0 | **5** | 0 | 0 | 0 | 0 | 0 | 0 | **5** | 0 | **5** |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | **5** | 0 | 0 | 0 | 0 | 0 | 0 | **5** | 0 | **5** |
| **Total** | 33 | 270 | 64 | 0 | 14 | **098** | 21 | 35 | 118 | 49 | 0 | 26 | **339** | 1 | **8449** |
| **% Approach** | 8.7% | 70.9% | 16.8% | 0% | 3.7% | - | - | 15.4% | 51.8% | 21.5% | 0% | 11.4% | - | - | - |
| **% Total** | 1.9% | 15.2% | 3.6% | 0% | 0.8% | **38.2%** | - | 2.0% | 6.6% | 2.8% | 0% | 1.5% | **83.9%** | - | - |
| **Lights** | 33 | 264 | 54 | 0 | 10 | **018** | - | 31 | 107 | 46 | 0 | 25 | **356** | - | 1683 |
| **% Lights** | 100% | 97.8% | 84.4% | 0% | 71.4% | **62.9%** | - | 88.6% | 90.7% | 93.9% | 0% | 96.2% | **68.4%** | - | 94.7% |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 3 | 1 | 0 | 0 | **2** | - | 2 | 5 | 2 | 0 | 1 | **85** | - | 35 |
| **% Articulated Trucks and Single-Unit Trucks** | 0% | 1.1% | 1.6% | 0% | 0% | **8.5%** | - | 5.7% | 4.2% | 4.1% | 0% | 3.8% | **2.2%** | - | 2.0% |
| **Buses** | 0 | 2 | 8 | 0 | 3 | **80** | - | 2 | 6 | 1 | 0 | 0 | **6** | - | 47 |
| **% Buses** | 0% | 0.7% | 12.5% | 0% | 21.4% | **0.2%** | - | 5.7% | 5.1% | 2.0% | 0% | 0% | **0.6%** | - | 2.6% |
| **Bicycles on Road** | 0 | 1 | 1 | 0 | 1 | **0** | - | 0 | 0 | 0 | 0 | 0 | **5** | - | 13 |
| **% Bicycles on Road** | 0% | 0.4% | 1.6% | 0% | 7.1% | **5.9%** | - | 0% | 0% | 0% | 0% | 0% | **5%** | - | 0.7% |
| Pedestrians | - | - | - | - | - | - | 19 | - | - | - | - | - | - | 1 | |
| % Pedestrians | - | - | - | - | - | - | 90.5% | - | - | - | - | - | - | 100% | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 2 | - | - | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 9.5% | - | - | - | - | - | - | 0% | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

**11. Broadway and Lafayette - TMC**
Wed Jul 18, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 548864, Location: 43.10297, -75.232935, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US






**11. Broadway and Lafayette - TMC**
Wed Jul 18, 2018
Forced Peak (7:45AM - 8:45AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 548864, Location: 43.10297, -75.232935, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Lafayette St | | | | | | | Lafayette St | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Eastbound | | | | | | | Westbound | | | | | | |
| Time | L | T | R | U | RR | App | Ped* | L | T | R | U | RR | App | Ped* |
| 2018-07-18 7:45AM | 2 | 23 | 3 | 0 | 0 | 24 | 1 | 8 | 41 | 2 | 0 | 0 | 03 | 0 |
| 8:00AM | 4 | 28 | 9 | 0 | 0 | 73 | 2 | 8 | 31 | 3 | 0 | 0 | 72 | 0 |
| 8:15AM | 5 | 30 | 4 | 0 | 0 | 91 | 0 | 10 | 30 | 2 | 0 | 1 | 79 | 0 |
| 8:30AM | 3 | 26 | 3 | 0 | 1 | 99 | 0 | 6 | 29 | 3 | 0 | 0 | 94 | 0 |
| 5 o lot | 14 | 107 | 19 | 0 | 1 | 373 | 3 | 32 | 131 | 10 | 0 | 1 | 3a7 | 0 |
| l %App 6orc | 9.9% | 75.9% | 13.5% | 0% | 0.7% | h | - | 18.4% | 75.3% | 5.7% | 0% | 0.6% | h | - |
| l %6Tot | 2.9% | 22.2% | 4.0% | 0% | 0.2% | 21-9l | - | 6.7% | 27.2% | 2.1% | 0% | 0.2% | 98-2l | - |
| . PH | 0.700 | 0.892 | 0.528 | - | 0.250 | F-48F | - | 0.800 | 0.799 | 0.833 | - | 0.250 | F-409 | - |
| LigcTs | 14 | 104 | 18 | 0 | 1 | 39a | - | 29 | 126 | 8 | 0 | 1 | 387 | - |
| l %igcTs | 100% | 97.2% | 94.7% | 0% | 100% | 1a-2l | - | 90.6% | 96.2% | 80.0% | 0% | 100% | 17-9l | - |
| A TrutoTed% urks%nd%ingtelUniT% urks | 0 | 0 | 0 | 0 | 0 | F | - | 0 | 3 | 0 | 0 | 0 | 9 | - |
| l %A TrutoTed% urks%nd%ingtelUniT% urks | 0% | 0% | 0% | 0% | 0% | Fl | - | 0% | 2.3% | 0% | 0% | 0% | 3-al | - |
| Buses | 0 | 1 | 1 | 0 | 0 | 2 | - | 3 | 2 | 1 | 0 | 0 | 8 | - |
| l %Buses | 0% | 0.9% | 5.3% | 0% | 0% | 3-7l | - | 9.4% | 1.5% | 10.0% | 0% | 0% | 9-7l | - |
| Biryrtes%n%R6od | 0 | 2 | 0 | 0 | 0 | 2 | - | 0 | 0 | 1 | 0 | 0 | 3 | - |
| l %Biryrtes%n%R6od | 0% | 1.9% | 0% | 0% | 0% | 3-7l | - | 0% | 0% | 10.0% | 0% | 0% | F-8l | - |
| Pedestrians | - | - | - | - | - | - | 3 | - | - | - | - | - | - | 0 |
| % Pedestrians | - | - | - | - | - | - | 100% | - | - | - | - | - | - | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 0% | - | - | - | - | - | - | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

**11. Broadway and Lafayette - TMC**
Wed Jul 18, 2018
Forced Peak (7:45AM - 8:45AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 548894, Location: 43.10267, -75.232635, Site Code: Utica, New York

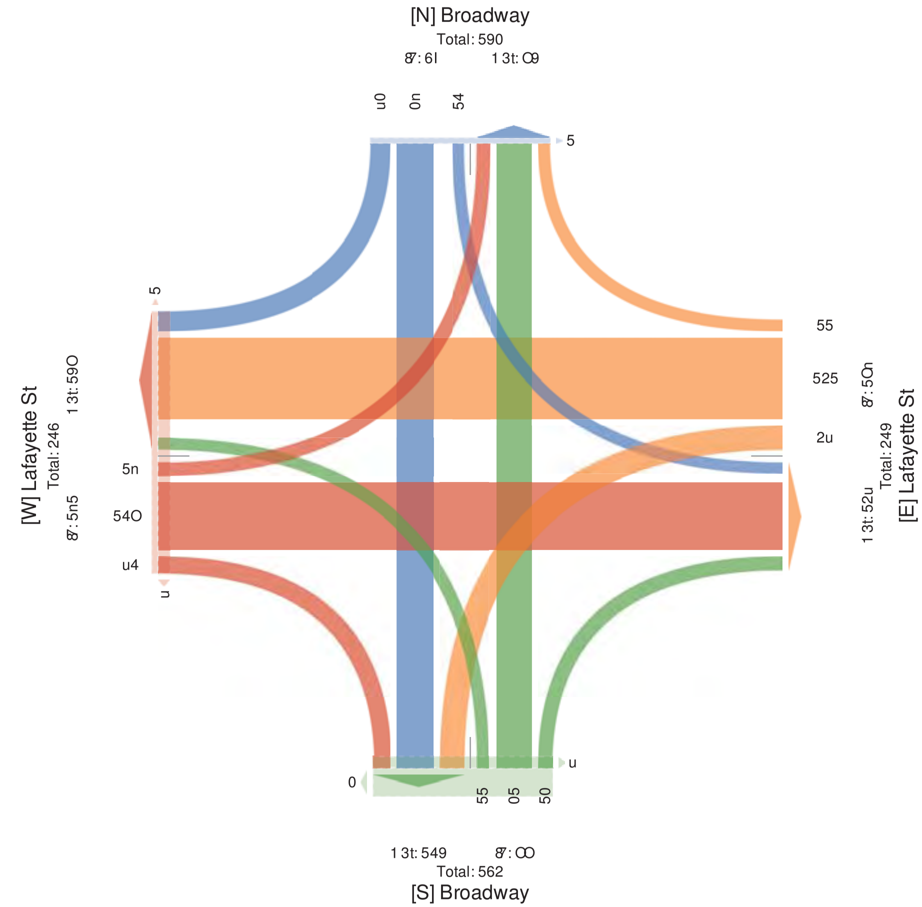
Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 16320, US

| Leg | Broadway | | | | | | | Broadway | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Northbound | | | | | | | Southbound | | | | | | | |
| Time | L | T | R | U | RR | App | Ped* | L | T | R | U | RR | App | Ped* | Int |
| 2018-07-18 7:45AM | 4 | 14 | 2 | 0 | 2 | 22 | 4 | 1 | 6 | 4 | 0 | 2 | 51 | 0 | 557 |
| 8:00AM | 3 | 13 | 3 | 0 | 1 | 24 | 0 | 5 | 19 | 5 | 0 | 2 | 28 | 1 | 505 |
| 8:15AM | 3 | 12 | 2 | 0 | 1 | 58 | 1 | 2 | 18 | 9 | 0 | 1 | 27 | 0 | 527 |
| 8:30AM | 1 | 12 | 3 | 0 | 1 | 57 | 2 | 2 | 11 | 5 | 0 | 0 | 58 | 0 | 541 |
| 3 ot9T | 11 | 51 | 10 | 0 | 5 | 77 | 7 | 10 | 54 | 20 | 0 | 5 | 8o | 1 | a85 |
| l %App 69rc | 14.3% | 99.2% | 13.0% | 0% | 9.5% | h | - | 11.2% | 90.7% | 22.5% | 0% | 5.9% | h | - | - |
| l %6t9T | 2.3% | 10.9% | 2.1% | 0% | 1.0% | 51-4l | - | 2.1% | 11.2% | 4.2% | 0% | 1.0% | 58-. l | - | - |
| PHF | 0.988 | 0.611 | 0.833 | - | 0.925 | 4-87. | - | 0.500 | 0.750 | 0.833 | - | 0.925 | 4-7o. | - | 0.618 |
| Ligcts | 11 | 50 | 8 | 0 | 3 | 72 | - | 6 | 46 | 16 | 0 | 4 | 85 | - | 454 |
| l %Ligcts | 100% | 68.0% | 80.0% | 0% | 90.0% | o0-. l | - | 60.0% | 60.7% | 65.0% | 0% | 80.0% | o5-4l | - | 64.4% |
| A tiruTDted% urks%nd%ingTEHUnit% urks | 0 | 0 | 0 | 0 | 0 | 4 | - | 0 | 3 | 0 | 0 | 1 | a | - | 7 |
| l %A tiruTDted% urks%nd%ingTEHUnit% urks | 0% | 0% | 0% | 0% | 0% | 4l | - | 0% | 5.9% | 0% | 0% | 20.0% | a-. l | - | 1.5% |
| Buses | 0 | 1 | 2 | 0 | 1 | a | - | 1 | 2 | 1 | 0 | 0 | a | - | 19 |
| l %Buses | 0% | 2.0% | 20.0% | 0% | 20.0% | . -2l | - | 10.0% | 3.7% | 5.0% | 0% | 0% | a-. l | - | 3.3% |
| BiryrTEs%n%R69d | 0 | 0 | 0 | 0 | 1 | 5 | - | 0 | 0 | 0 | 0 | 0 | 4 | - | 4 |
| l %BiryrTEs%n%R69d | 0% | 0% | 0% | 0% | 20.0% | 5-0l | - | 0% | 0% | 0% | 0% | 0% | 4l | - | 0.8% |
| Pedestrians | - | - | - | - | - | - | 9 | - | - | - | - | - | - | 1 | |
| % Pedestrians | - | - | - | - | - | - | 85.7% | - | - | - | - | - | - | 100% | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 14.3% | - | - | - | - | - | - | 0% | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

**11. Broadway and Lafayette - TMC**
Wed Jul 18, 2018
FLnged t eh( 7AM94 P 68M94 P )
4ll Clhaaea 7s ir cTa, 4 nTgulhTed k nug(a hSd UiSr leGBSiTk nug(a, yuaea, t edeaTrihSa, yigoglea LS RLhd, yigoglea LS CnLaawhl()
4ll P LvemeSTa
IDM9- 88: - , s LghTLSM53102. A, 6A93252. 59, UiTe CLdeMBTgh, New YLn(

t nLvided boM: niGUThTe k nhffig DhTh, ISg3
18- yh(en RLhd,
CLhTeaville, t 4 , 1. 520, BU







Revised A - 59

## 11. Broadway and Lafayette - TMC

Wed Jul 18, 2018
AM Peak (8AM - 9AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 548864, Location: 43.10297, -75.232935, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Lafayette St | | | | | | | Lafayette St | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Eastbound | | | | | | | Westbound | | | | | | |
| Time | L | T | R | U | RR | **App** | Ped* | L | T | R | U | RR | **App** | Ped* |
| 2018-07-18 8:00AM | 4 | 28 | 9 | 0 | 0 | **24** | 2 | 8 | 31 | 3 | 0 | 0 | **20** | 0 |
| 8:15AM | 5 | 30 | 4 | 0 | 0 | **37** | 0 | 10 | 30 | 2 | 0 | 1 | **23** | 0 |
| 8:30AM | 3 | 26 | 3 | 0 | 1 | **33** | 0 | 6 | 29 | 3 | 0 | 0 | **39** | 0 |
| 8:45AM | 3 | 24 | 5 | 0 | 1 | **33** | 2 | 7 | 43 | 3 | 0 | 1 | **12** | 1 |
| **5 6Tbt** | 15 | 108 | 21 | 0 | 2 | **42a** | 4 | 31 | 133 | 11 | 0 | 2 | **4l l** | 1 |
| **% Appr6och** | 10.3% | 74.0% | 14.4% | 0% | 1.4% | - | - | 17.5% | 75.1% | 6.2% | 0% | 1.1% | - | - |
| **% 5 6Tbt** | 3.1% | 22.4% | 4.4% | 0% | 0.4% | **38.3%** | - | 6.4% | 27.6% | 2.3% | 0% | 0.4% | **3a.l %** | - |
| **PHF** | 0.750 | 0.900 | 0.583 | - | 0.500 | **8.978** | - | 0.775 | 0.773 | 0.917 | - | 0.500 | **8.947** | - |
| **LighTs** | 15 | 105 | 20 | 0 | 2 | **420** | - | 27 | 127 | 9 | 0 | 2 | **4a1** | - |
| **% LighTs** | 100% | 97.2% | 95.2% | 0% | 100% | **71.3%** | - | 87.1% | 95.5% | 81.8% | 0% | 100% | **73.0%** | - |
| **ArTcutoTEd 5 rucks ond Singte-UniT5 rucks** | 0 | 0 | 0 | 0 | 0 | **8** | - | 0 | 4 | 0 | 0 | 0 | **2** | - |
| **% ArTcutoTEd 5 rucks ond Singte-UniT5 rucks** | 0% | 0% | 0% | 0% | 0% | **8%** | - | 0% | 3.0% | 0% | 0% | 0% | **0.3%** | - |
| **Buses** | 0 | 1 | 1 | 0 | 0 | **0** | - | 4 | 2 | 1 | 0 | 0 | **l** | - |
| **% Buses** | 0% | 0.9% | 4.8% | 0% | 0% | **4.2%** | - | 12.9% | 1.5% | 9.1% | 0% | 0% | **2.8%** | - |
| **Bicyctes 6n R6od** | 0 | 2 | 0 | 0 | 0 | **0** | - | 0 | 0 | 1 | 0 | 0 | **4** | - |
| **% Bicyctes 6n R6od** | 0% | 1.9% | 0% | 0% | 0% | **4.2%** | - | 0% | 0% | 9.1% | 0% | 0% | **8.a%** | - |
| Pedestrians | - | - | - | - | - | - | 4 | - | - | - | - | - | - | 1 |
| % Pedestrians | - | - | - | - | - | - | 100% | - | - | - | - | - | - | 100% |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 0% | - | - | - | - | - | - | 0% |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

## 11. Broadway and Lafayette - TMC

Wed Jul 18, 2018
AM Peak (8AM 7: AM3
All - la))e) (CsLi g), Ahgst ulaged r hut k) acd TscLle7n csgr hut k), Su)e), Pede)ghsac), Sst Ut le) Bc y Bad, Sst Ut le) Bc - hB))o alk3
All MBRewecg)
vmID58845, CBt agsBcI59.102: 6, 76D292: 9D, Tsge - BdeIn gst a, Neo YBhk

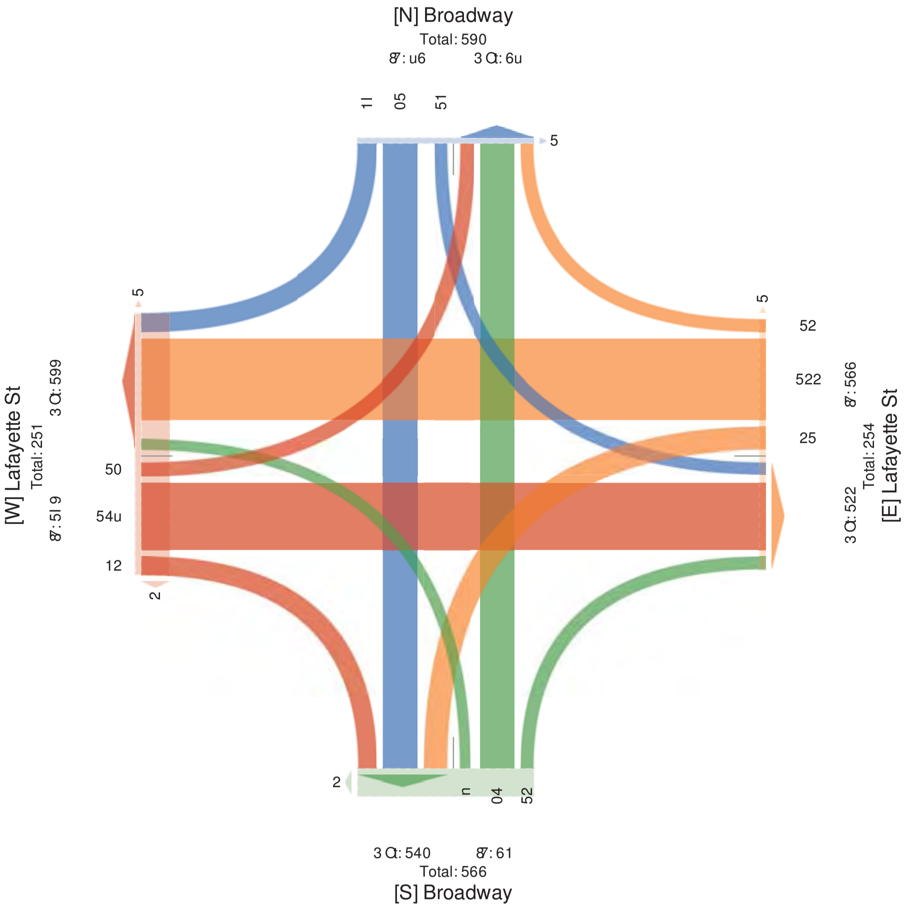
PhBRsded bUIr hs7Tgage r haffst maga, vct.
185 Sakeh y Bad,
- Bage)Rslle, PA, 1: 920, n T

| CeL | ShBado aU | | | | | | | ShBado aU | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| mshe t gsBc | NBhgi bBucd | | | | | | | TBugi bBucd | | | | | | | |
| r swe | C | r | y | n | yy | **App** | Ped* | C | r | y | n | yy | **App** | Ped* | **Int** |
| 2018706718 8I00AM | 9 | 19 | 9 | 0 | 1 | **25** | 0 | D | 14 | D | 0 | 2 | **21** | 1 | **747** |
| 8I1DAM | 9 | 12 | 2 | 0 | 1 | **71** | 1 | 2 | 18 | 4 | 0 | 1 | **28** | 0 | **728** |
| 8I90AM | 1 | 12 | 9 | 0 | 1 | **78** | 2 | 2 | 11 | D | 0 | 0 | **71** | 0 | **750** |
| 8I5DAM | 2 | 19 | 2 | 0 | 0 | **78** | 0 | 9 | 4 | 0 | 0 | D | **73** | 0 | **771** |
| **6 9tTo** | : | D0 | 10 | 0 | 9 | **82** | 9 | 12 | D1 | 14 | 0 | 8 | **18** | 1 | **312** |
| **a lApp%9T r** | 12.D% | 4: .5% | 19.: % | 0% | 5.2% | **c** | 7 | 19.8% | D8.4% | 18.5% | 0% | : .2% | **c** | 7 | 7 |
| **a l6 9tTo** | 1.: % | 10.5% | 2.1% | 0% | 0.4% | **73h a** | 7 | 2.D% | 10.4% | 9.9% | 0% | 1.6% | **71l5a** | 7 | 7 |
| **. PH** | 0.6D0 | 0.: 42 | 0.899 | 7 | 0.6D0 | **5h 55** | 7 | 0.400 | 0.608 | 0.446 | 7 | 0.500 | **5l888** | 7 | 0.: 20 |
| **FLi rtg** | : | 5: | 8 | 0 | 9 | **0-** | 7 | 11 | 56 | 1D | 0 | 6 | **15** | 7 | 5D4 |
| **a lFLi rtg** | 100% | : 8.0% | 80.0% | 0% | 100% | **-sh1a** | 7 | : 1.6% | : 2.2% | : 9.8% | 0% | 86.D% | **-2l5a** | 7 | : 5.4% |
| **A%L uoTtedl6 %u kglTndlS Ini œcUnItl6 %u kg** | 0 | 1 | 0 | 0 | 0 | **7** | 7 | 0 | 9 | 0 | 0 | 1 | **3** | 7 | : |
| **a lA%L uoTtedl6 %u kglTndlS Ini œcUnItl6 %u kg** | 0% | 2.0% | 0% | 0% | 0% | **7l3a** | 7 | 0% | D.: % | 0% | 0% | 12.D% | **3l0a** | 7 | 1.: % |
| **Buge g** | 0 | 0 | 2 | 0 | 0 | **2** | 7 | 1 | 1 | 1 | 0 | 0 | **4** | 7 | 15 |
| **a lBuge g** | 0% | 0% | 20.0% | 0% | 0% | **2h1a** | 7 | 8.9% | 2.0% | 4.9% | 0% | 0% | **4l3a** | 7 | 2.: % |
| **BL y œgl9nlR9Td** | 0 | 0 | 0 | 0 | 0 | **5** | 7 | 0 | 0 | 0 | 0 | 0 | **5** | 7 | 9 |
| **a lBL y œgl9nlR9Td** | 0% | 0% | 0% | 0% | 0% | **5a** | 7 | 0% | 0% | 0% | 0% | 0% | **5a** | 7 | 0.4% |
| Pede)ghsac) | 7 | 7 | 7 | 7 | 7 | 7 | 9 | 7 | 7 | 7 | 7 | 7 | 7 | 1 | |
| % Pede)ghsac) | 7 | 7 | 7 | 7 | 7 | 7 | 100% | 7 | 7 | 7 | 7 | 7 | 7 | 100% | 7 |
| Sst Ut le) Bc - hB))o alk | 7 | 7 | 7 | 7 | 7 | 7 | 0 | 7 | 7 | 7 | 7 | 7 | 7 | 0 | |
| % Sst Ut le) Bc - hB))o alk | 7 | 7 | 7 | 7 | 7 | 7 | 0% | 7 | 7 | 7 | 7 | 7 | 7 | 0% | 7 |

*Pede)ghsac) acd Sst Ut le) Bc - hB))o alk. CI Cefg y I y sLi g y y I y sLi gBc hed, r I r i hu, n I n 7r uhc

**11. Broadway and Lafayette - TMC**
Wed Jul 18, 2018
AM Peak (8AM 7: AM3
All - la))e) (GsLi g), Ahgtulaged r hutk) acd TscLle7ncsgr hutk), Su)e), Pede)ghac), SstUtle)
Bc y Bad, SstUtle) Bc - hB))oalk3
All MBRewecg)
vmlD58845, CBtagsBc159.102: 6, 76D292: 9D, Tsge - BdeIngta, Neo YBhk

PhBRsded bUr hs7Tgage r haffst mag, vct.
185 Sakehy Bad,
- Bage)Rdle, PA, 1: 920, nT






**11. Broadway and Lafayette - TMC**
Wed Jul 18, 2018
PM Peak (4PM - 5PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 548894, Location: 43.10276, -65.232735, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 17320, US

| Leg | Lafayette St | | | | | | | Lafayette St | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Eastbound | | | | | | | Westbound | | | | | | |
| Time | L | T | R | U | RR | App | Ped* | L | T | R | U | RR | App | Ped* |
| 2018-06-18 4:00PM | 3 | 32 | 1 | 0 | 0 | **36** | 0 | 5 | 49 | 9 | 0 | 3 | **60** | 0 |
| 4:15PM | 1 | 27 | 0 | 0 | 0 | **30** | 0 | 3 | 93 | 4 | 0 | 0 | **70** | 2 |
| 4:30PM | 2 | 32 | 0 | 0 | 0 | **34** | 0 | 6 | 58 | 4 | 0 | 2 | **71** | 0 |
| 4:45PM | 2 | 32 | 3 | 0 | 0 | **37** | 0 | 3 | 45 | 9 | 0 | 1 | **55** | 0 |
| **Total** | 8 | 125 | 4 | 0 | 0 | **137** | 0 | 18 | 212 | 20 | 0 | 9 | **256** | 2 |
| **% Approach** | 5.8% | 71.2% | 2.7% | 0% | 0% | - | - | 6.0% | 82.8% | 6.8% | 0% | 2.3% | - | - |
| **% Total** | 1.3% | 20.2% | 0.9% | 0% | 0% | **22.2%** | - | 2.7% | 34.3% | 3.2% | 0% | 1.0% | **41.4%** | - |
| **PHF** | 0.996 | 0.766 | 0.333 | - | - | **0.926** | - | 0.943 | 0.841 | 0.833 | - | 0.500 | **0.901** | - |
| **Lights** | 9 | 120 | 4 | 0 | 0 | **130** | - | 15 | 209 | 17 | 0 | 9 | **246** | - |
| **% Lights** | 65.0% | 79.0% | 100% | 0% | 0% | **94.9%** | - | 83.3% | 76.2% | 75.0% | 0% | 100% | **96.1%** | - |
| **Articulated Trucks and Single-Unit Trucks** | 2 | 3 | 0 | 0 | 0 | **5** | - | 1 | 4 | 0 | 0 | 0 | **5** | - |
| **% Articulated Trucks and Single-Unit Trucks** | 25.0% | 2.4% | 0% | 0% | 0% | **3.6%** | - | 5.9% | 1.7% | 0% | 0% | 0% | **2.0%** | - |
| **Buses** | 0 | 0 | 0 | 0 | 0 | **0** | - | 2 | 1 | 1 | 0 | 0 | **4** | - |
| **% Buses** | 0% | 0% | 0% | 0% | 0% | **0%** | - | 11.1% | 0.5% | 5.0% | 0% | 0% | **1.6%** | - |
| **Bicycles on Road** | 0 | 2 | 0 | 0 | 0 | **2** | - | 0 | 1 | 0 | 0 | 0 | **1** | - |
| **% Bicycles on Road** | 0% | 1.9% | 0% | 0% | 0% | **1.5%** | - | 0% | 0.5% | 0% | 0% | 0% | **0.4%** | - |
| Pedestrians | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 2 |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | 100% |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | 0% |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

## 11. Broadway and Lafayette - TMC

Wed Jul 18, 2018
PM Peak (4PM : 3PM- : 5 ) eOall Peak vr uO
Hll o laAe A(CsLi gA, HOgshulaged t OuhkAacd TscLle:n csgt OuhkA, SuAeA, PedeAgOsacA, SshUhleA r c Br ad, SshUhle Ar c o Or AAy alk-
Hll Mr ) eR ecgA
wmI 3488D4, Cr hagsr cI 49.10267, :73.292693, Tsge o r de In gsha, Ney Yr Ok

POr ) sded bUIt OsTgage t Oaffsh magsa, wch.
184 SakeOBr ad,
or ageA) slle, PH, 16920, n T

| Ce L msOehgsr c t sR e | SOr ady aU Nr Ogi br ucd C | t | B | n | BB | App | Ped* | SOr ady aU Trugi br ucd C | t | B | n | BB | App | Ped* | Int |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2018:07:18 4I00PM | 2 | 93 | 4 | 0 | 1 | 25 | 2 | 1 | 8 | D | 0 | 1 | 17 | 0 | 142 |
| 4I13PM | 1 | 16 | 9 | 0 | 9 | 57 | 2 | 9 | 8 | 9 | 0 | 0 | 12 | 0 | 128 |
| 4I90PM | 3 | 47 | 1D | 0 | 1 | 70 | 2 | 4 | 7 | 3 | 0 | 2 | 13 | 0 | 105 |
| 4I43PM | 2 | 21 | 7 | 0 | 2 | 65 | 1 | 0 | 3 | 2 | 0 | 1 | 3 | 0 | 165 |
| 9 ıtoa | 10 | 122 | 90 | 0 | 7 | 170 | 7 | 8 | 28 | 1D | 0 | 4 | 47 | 0 | 713 |
| l %App Torc | 3.6% | 72.2% | 17.8% | 0% | 4.1% | h | : | 14.9% | 30.0% | 28.D% | 0% | 7.1% | h | : | : |
| l % Ttoa | 1.D% | 16.7% | 4.6% | 0% | 1.1% | 5-.6l | : | 1.9% | 4.3% | 2.D% | 0% | 0.D% | 0.1l | : | : |
| PHF | 0.300 | 0.D46 | 0.4D6 | : | 0.389 | 8.715 | : | 0.300 | 0.873 | 0.DD7 | : | 0.300 | 8.--3 | : | 0.803 |
| Ligcts | 10 | 120 | 27 | 0 | 3 | 175 | : | 8 | 27 | 14 | 0 | 4 | 46 | : | 361 |
| l %Ligcts | 100% | 68.4% | 60.0% | 0% | 71.4% | 04.0l | : | 100% | 6D.4% | 87.3% | 0% | 100% | 02.7l | : | 63.D% |
| A tiruaoted% urks %nd %ingaeh Unit% urks | 0 | 1 | 0 | 0 | 0 | 1 | : | 0 | 0 | 2 | 0 | 0 | 5 | : | 19 |
| l %A tiruaoted% urks %nd %ingaeh Unit% urks | 0% | 0.8% | 0% | 0% | 0% | 8.7l | : | 0% | 0% | 12.3% | 0% | 0% | 6.7l | : | 2.1% |
| Buses | 0 | 1 | 2 | 0 | 2 | 4 | : | 0 | 1 | 0 | 0 | 0 | 1 | : | 10 |
| l %Buses | 0% | 0.8% | D.7% | 0% | 28.D% | 6.8l | : | 0% | 9.D% | 0% | 0% | 0% | 1.3l | : | 1.D% |
| Biryraes %n %RTod | 0 | 0 | 1 | 0 | 0 | 1 | : | 0 | 0 | 0 | 0 | 0 | 8 | : | 4 |
| l %Biryraes %n %RTod | 0% | 0% | 9.9% | 0% | 0% | 8.7l | : | 0% | 0% | 0% | 0% | 0% | 8l | : | 0.D% |
| PedeAgOsacA | : | : | : | : | : | : | 7 | : | : | : | : | : | : | 0 | |
| % PedeAgOsacA | : | : | : | : | : | : | 100% | : | : | : | : | : | : | : | : |
| SshUhle Ar c o Or AAy alk | : | : | : | : | : | : | 0 | : | : | : | : | : | : | 0 | |
| % SshUhle Ar c o Or AAy alk | : | : | : | : | : | : | 0% | : | : | : | : | : | : | : | : |

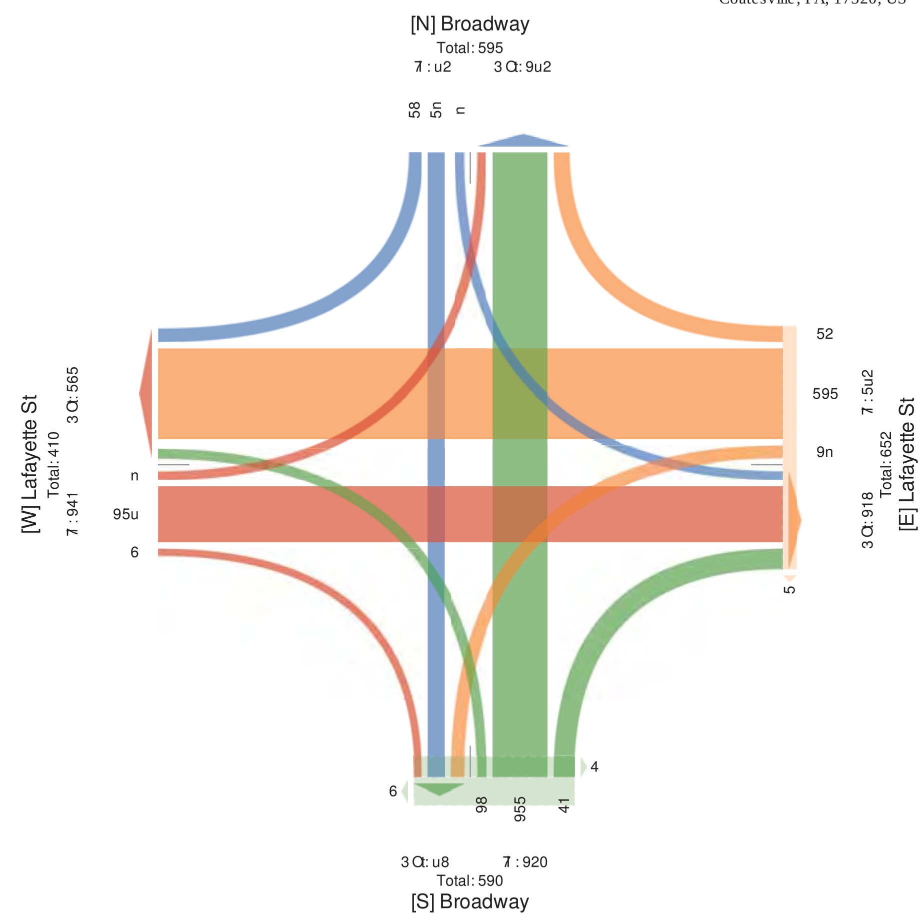
*PedeAgOsacAacd SshUhle Ar c o Or AAy alk. CI Cefg BI BsLi g BBI BsLi gr c Oed, t It i Ou, n In :t uOc



## 11. Broadway and Lafayette - TMC

Wed Jul 18, 2018
PM Peak (4PM - 5PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 548894, Location: 43.10276, -65.232735, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 17320, US



Utica, NY
Broadway/Columbia
Wednesday, July 18, 2018
Location: 43.102139, -
75.233588

TRI-STATE TRAFFIC DATA
www.TSTData.com
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-466-1469 jvetterlein@tstdata.com
Serving Transportation Professionals Since 1995

Count Name: 12. Broadway and
Columbia
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 1

## Turning Movement Data

| | Broadway Southbound | | | | | | | Columbia St. Westbound | | | | | | | Broadway Northbound | | | | | | | Columbia St. Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Int. Total |
| 7:00 AM | 2 | 0 | 3 | 2 | 0 | 2 | 7 | 1 | 0 | 8 | 1 | 0 | 0 | 10 | 7 | 0 | 4 | 0 | 0 | 0 | 11 | 0 | 0 | 12 | 1 | 0 | 1 | 13 | 41 |
| 7:15 AM | 2 | 0 | 12 | 0 | 0 | 0 | 14 | 1 | 0 | 3 | 0 | 0 | 0 | 4 | 4 | 0 | 8 | 4 | 0 | 1 | 16 | 1 | 0 | 18 | 1 | 0 | 0 | 20 | 54 |
| 7:30 AM | 3 | 0 | 10 | 1 | 0 | 3 | 14 | 3 | 0 | 11 | 1 | 0 | 0 | 15 | 5 | 0 | 9 | 2 | 0 | 0 | 16 | 1 | 1 | 19 | 2 | 0 | 1 | 23 | 68 |
| 7:45 AM | 3 | 1 | 15 | 1 | 0 | 0 | 20 | 2 | 2 | 15 | 1 | 0 | 1 | 20 | 5 | 0 | 12 | 4 | 0 | 0 | 21 | 3 | 2 | 22 | 6 | 0 | 1 | 33 | 94 |
| Hourly Total | 10 | 1 | 40 | 4 | 0 | 5 | 55 | 7 | 2 | 37 | 3 | 0 | 1 | 49 | 21 | 0 | 33 | 10 | 0 | 1 | 64 | 5 | 3 | 71 | 10 | 0 | 3 | 89 | 257 |
| 8:00 AM | 3 | 3 | 23 | 3 | 0 | 4 | 32 | 1 | 2 | 13 | 5 | 0 | 0 | 21 | 14 | 1 | 16 | 1 | 0 | 0 | 32 | 7 | 0 | 49 | 1 | 0 | 1 | 57 | 142 |
| 8:15 AM | 2 | 0 | 24 | 6 | 0 | 1 | 32 | 3 | 0 | 14 | 5 | 0 | 0 | 22 | 9 | 5 | 13 | 0 | 0 | 0 | 27 | 2 | 1 | 41 | 3 | 0 | 0 | 47 | 128 |
| 8:30 AM | 2 | 0 | 16 | 3 | 0 | 3 | 21 | 2 | 0 | 8 | 5 | 0 | 0 | 15 | 11 | 3 | 11 | 2 | 0 | 1 | 27 | 1 | 2 | 34 | 4 | 0 | 0 | 41 | 104 |
| 8:45 AM | 3 | 0 | 14 | 1 | 0 | 2 | 18 | 3 | 1 | 14 | 4 | 0 | 0 | 22 | 6 | 4 | 12 | 2 | 0 | 9 | 24 | 3 | 1 | 21 | 2 | 0 | 2 | 27 | 91 |
| Hourly Total | 10 | 3 | 77 | 13 | 0 | 10 | 103 | 9 | 3 | 49 | 19 | 0 | 0 | 80 | 40 | 13 | 52 | 5 | 0 | 10 | 110 | 13 | 4 | 145 | 10 | 0 | 3 | 172 | 465 |
| 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:00 PM | 2 | 1 | 9 | 2 | 0 | 4 | 14 | 14 | 3 | 49 | 4 | 0 | 1 | 70 | 11 | 1 | 26 | 9 | 0 | 4 | 47 | 1 | 0 | 23 | 3 | 0 | 2 | 27 | 158 |
| 4:15 PM | 1 | 1 | 7 | 0 | 0 | 0 | 9 | 9 | 1 | 33 | 6 | 0 | 0 | 49 | 4 | 3 | 12 | 8 | 0 | 7 | 27 | 2 | 1 | 38 | 3 | 0 | 1 | 44 | 129 |
| 4:30 PM | 2 | 0 | 9 | 3 | 0 | 0 | 14 | 15 | 2 | 58 | 3 | 0 | 0 | 78 | 16 | 3 | 49 | 7 | 0 | 2 | 75 | 1 | 1 | 35 | 6 | 0 | 0 | 43 | 210 |
| 4:45 PM | 3 | 1 | 8 | 3 | 0 | 0 | 15 | 10 | 4 | 31 | 4 | 0 | 0 | 49 | 8 | 2 | 12 | 7 | 0 | 1 | 29 | 0 | 0 | 32 | 7 | 0 | 3 | 39 | 132 |
| Hourly Total | 8 | 3 | 33 | 8 | 0 | 4 | 52 | 48 | 10 | 171 | 17 | 0 | 1 | 246 | 39 | 9 | 99 | 31 | 0 | 14 | 178 | 4 | 2 | 128 | 19 | 0 | 6 | 153 | 629 |
| 5:00 PM | 2 | 0 | 3 | 0 | 0 | 1 | 5 | 3 | 5 | 35 | 7 | 0 | 0 | 50 | 6 | 2 | 21 | 6 | 0 | 0 | 35 | 0 | 0 | 37 | 2 | 1 | 1 | 40 | 130 |
| 5:15 PM | 3 | 0 | 3 | 3 | 0 | 2 | 9 | 4 | 0 | 17 | 3 | 0 | 1 | 24 | 10 | 0 | 17 | 1 | 0 | 1 | 28 | 1 | 0 | 29 | 1 | 1 | 0 | 32 | 93 |
| 5:30 PM | 1 | 1 | 6 | 0 | 0 | 1 | 8 | 2 | 3 | 20 | 0 | 0 | 0 | 25 | 2 | 1 | 7 | 3 | 0 | 3 | 13 | 0 | 1 | 17 | 3 | 0 | 0 | 21 | 67 |
| 5:45 PM | 0 | 2 | 1 | 1 | 0 | 0 | 4 | 3 | 1 | 16 | 0 | 0 | 0 | 20 | 3 | 5 | 12 | 2 | 0 | 1 | 22 | 0 | 0 | 18 | 1 | 0 | 2 | 19 | 65 |
| Hourly Total | 6 | 3 | 13 | 4 | 0 | 4 | 26 | 12 | 9 | 88 | 10 | 0 | 1 | 119 | 21 | 8 | 57 | 12 | 0 | 5 | 98 | 1 | 1 | 101 | 7 | 2 | 3 | 112 | 355 |
| Grand Total | 34 | 10 | 163 | 29 | 0 | 23 | 236 | 76 | 24 | 345 | 49 | 0 | 3 | 494 | 121 | 30 | 241 | 58 | 0 | 30 | 450 | 23 | 10 | 445 | 46 | 2 | 15 | 526 | 1706 |
| Approach % | 14.4 | 4.2 | 69.1 | 12.3 | 0.0 | - | - | 15.4 | 4.9 | 69.8 | 9.9 | 0.0 | - | - | 26.9 | 6.7 | 53.6 | 12.9 | 0.0 | - | - | 4.4 | 1.9 | 84.6 | 8.7 | 0.4 | - | - | - |
| Total % | 2.0 | 0.6 | 9.6 | 1.7 | 0.0 | - | 13.8 | 4.5 | 1.4 | 20.2 | 2.9 | 0.0 | - | 29.0 | 7.1 | 1.8 | 14.1 | 3.4 | 0.0 | - | 26.4 | 1.3 | 0.6 | 26.1 | 2.7 | 0.1 | - | 30.8 | - |
| Lights | 22 | 7 | 157 | 26 | 0 | - | 212 | 74 | 24 | 331 | 47 | 0 | - | 476 | 118 | 30 | 239 | 56 | 0 | - | 443 | 23 | 10 | 432 | 31 | 2 | - | 498 | 1629 |
| % Lights | 64.7 | 70.0 | 96.3 | 89.7 | - | - | 89.8 | 97.4 | 100.0 | 95.9 | 95.9 | - | - | 96.4 | 97.5 | 100.0 | 99.2 | 96.6 | - | - | 98.4 | 100.0 | 100.0 | 97.1 | 67.4 | 100.0 | - | 94.7 | 95.5 |
| Buses | 12 | 3 | 2 | 1 | 0 | - | 18 | 1 | 0 | 0 | 0 | 0 | - | 1 | 2 | 0 | 0 | 1 | 0 | - | 3 | 0 | 0 | 4 | 13 | 0 | - | 17 | 39 |
| % Buses | 35.3 | 30.0 | 1.2 | 3.4 | - | - | 7.6 | 1.3 | 0.0 | 0.0 | 0.0 | - | - | 0.2 | 1.7 | 0.0 | 0.0 | 1.7 | - | - | 0.7 | 0.0 | 0.0 | 0.9 | 28.3 | 0.0 | - | 3.2 | 2.3 |
| Trucks | 0 | 0 | 4 | 2 | 0 | - | 6 | 1 | 0 | 7 | 1 | 0 | - | 9 | 0 | 0 | 1 | 1 | 0 | - | 2 | 0 | 0 | 6 | 1 | 0 | - | 7 | 24 |
| % Trucks | 0.0 | 0.0 | 2.5 | 6.9 | - | - | 2.5 | 1.3 | 0.0 | 2.0 | 2.0 | - | - | 1.8 | 0.0 | 0.0 | 0.4 | 1.7 | - | - | 0.4 | 0.0 | 0.0 | 1.3 | 2.2 | 0.0 | - | 1.3 | 1.4 |
| Bicycles on Road | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 7 | 1 | 0 | - | 8 | 1 | 0 | 1 | 0 | 0 | - | 2 | 0 | 0 | 3 | 1 | 0 | - | 4 | 14 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 2.0 | 2.0 | - | - | 1.6 | 0.8 | 0.0 | 0.4 | 0.0 | - | - | 0.4 | 0.0 | 0.0 | 0.7 | 2.2 | 0.0 | - | 0.8 | 0.8 |
| Bicycles on Crosswalk | - | - | - | - | - | 5 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 3 | - | - | - | - | - | - | 1 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | 21.7 | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 10.0 | - | - | - | - | - | - | 6.7 | - | - |
| Pedestrians | - | - | - | - | - | 18 | - | - | - | - | - | - | 3 | - | - | - | - | - | - | 27 | - | - | - | - | - | - | 14 | - | - |
| % Pedestrians | - | - | - | - | - | 78.3 | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 90.0 | - | - | - | - | - | - | 93.3 | - | - |

Utica, NY
Broadway/Columbia
Wednesday, July 18, 2018
Location: 43.102139, -
75.233588

TRI-STATE TRAFFIC DATA
www.TSTData.com
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-466-1469 jvetterlein@tstdata.com
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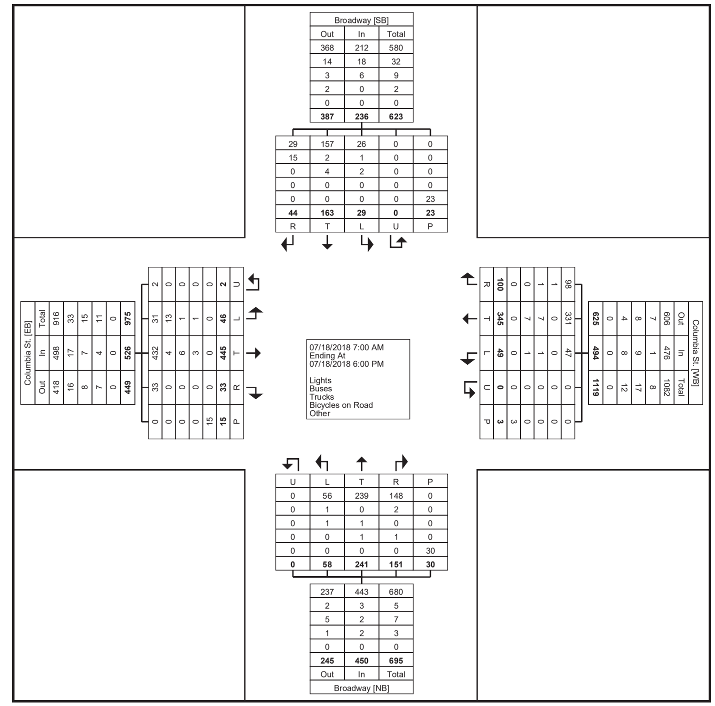
Count Name: 12. Broadway and
Columbia
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 2




Turning Movement Data Plot

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184 Baker Rd
Coatesville, Pennsylvania, United States 19320
610-466-1469 jvetterlein@tstdata.com
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## Turning Movement Peak Hour Data (7:45 AM)

| Start Time | Broadway Southbound | | | | | | | Columbia St. Westbound | | | | | | | Broadway Northbound | | | | | | | Columbia St. Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Int. Total |
| 7:45 AM | 3 | 1 | 15 | 1 | 0 | 0 | 20 | 2 | 2 | 15 | 1 | 0 | 1 | 20 | 5 | 0 | 12 | 4 | 0 | 0 | 21 | 3 | 2 | 22 | 6 | 0 | 1 | 33 | 94 |
| 8:00 AM | 3 | 3 | 23 | 3 | 0 | 4 | 32 | 1 | 2 | 13 | 5 | 0 | 0 | 21 | 14 | 1 | 16 | 1 | 0 | 0 | 32 | 7 | 0 | 49 | 1 | 0 | 1 | 57 | 142 |
| 8:15 AM | 2 | 0 | 24 | 6 | 0 | 1 | 32 | 3 | 0 | 14 | 5 | 0 | 0 | 22 | 9 | 5 | 13 | 0 | 0 | 0 | 27 | 2 | 1 | 41 | 3 | 0 | 0 | 47 | 128 |
| 8:30 AM | 2 | 0 | 16 | 3 | 0 | 3 | 21 | 2 | 0 | 8 | 5 | 0 | 0 | 15 | 11 | 3 | 11 | 2 | 0 | 1 | 27 | 1 | 2 | 34 | 4 | 0 | 0 | 41 | 104 |
| Total | 10 | 4 | 78 | 13 | 0 | 8 | 105 | 8 | 4 | 50 | 16 | 0 | 1 | 78 | 39 | 9 | 52 | 7 | 0 | 1 | 107 | 13 | 5 | 146 | 14 | 0 | 2 | 178 | 468 |
| Approach % | 9.5 | 3.8 | 74.3 | 12.4 | 0.0 | - | - | 10.3 | 5.1 | 64.1 | 20.5 | 0.0 | - | - | 36.4 | 8.4 | 48.6 | 6.5 | 0.0 | - | - | 7.3 | 2.8 | 82.0 | 7.9 | 0.0 | - | - | - |
| Total % | 2.1 | 0.9 | 16.7 | 2.8 | 0.0 | - | 22.4 | 1.7 | 0.9 | 10.7 | 3.4 | 0.0 | - | 16.7 | 8.3 | 1.9 | 11.1 | 1.5 | 0.0 | - | 22.9 | 2.8 | 1.1 | 31.2 | 3.0 | 0.0 | - | 38.0 | - |
| PHF | 0.833 | 0.333 | 0.813 | 0.542 | 0.000 | - | 0.820 | 0.667 | 0.500 | 0.833 | 0.800 | 0.000 | - | 0.886 | 0.696 | 0.450 | 0.813 | 0.438 | 0.000 | - | 0.836 | 0.464 | 0.625 | 0.745 | 0.583 | 0.000 | - | 0.781 | 0.824 |
| Lights | 6 | 4 | 74 | 13 | 0 | - | 97 | 8 | 4 | 47 | 16 | 0 | - | 75 | 38 | 9 | 52 | 5 | 0 | - | 104 | 13 | 5 | 140 | 9 | 0 | - | 167 | 443 |
| % Lights | 60.0 | 100.0 | 94.9 | 100.0 | - | - | 92.4 | 100.0 | 100.0 | 94.0 | 100.0 | - | - | 96.2 | 97.4 | 100.0 | 100.0 | 71.4 | - | - | 97.2 | 100.0 | 100.0 | 95.9 | 64.3 | - | - | 93.8 | 94.7 |
| Buses | 4 | 0 | 1 | 0 | 0 | - | 5 | 0 | 0 | 0 | 0 | 0 | - | 0 | 1 | 0 | 0 | 1 | 0 | - | 2 | 0 | 0 | 2 | 4 | 0 | - | 6 | 13 |
| % Buses | 40.0 | 0.0 | 1.3 | 0.0 | - | - | 4.8 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 2.6 | 0.0 | 0.0 | 14.3 | - | - | 1.9 | 0.0 | 0.0 | 1.4 | 28.6 | - | - | 3.4 | 2.8 |
| Trucks | 0 | 0 | 3 | 0 | 0 | - | 3 | 0 | 0 | 2 | 0 | 0 | - | 2 | 0 | 0 | 0 | 1 | 0 | - | 1 | 0 | 0 | 2 | 0 | 0 | - | 2 | 8 |
| % Trucks | 0.0 | 0.0 | 3.8 | 0.0 | - | - | 2.9 | 0.0 | 0.0 | 4.0 | 0.0 | - | - | 2.6 | 0.0 | 0.0 | 0.0 | 14.3 | - | - | 0.9 | 0.0 | 0.0 | 1.4 | 0.0 | - | - | 1.1 | 1.7 |
| Bicycles on Road | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 1 | 0 | 0 | - | 1 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 2 | 1 | 0 | - | 3 | 4 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 2.0 | 0.0 | - | - | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 1.4 | 7.1 | - | - | 1.7 | 0.9 |
| Bicycles on Crosswalk | - | - | - | - | - | 3 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | 37.5 | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 0.0 | - | - |
| Pedestrians | - | - | - | - | - | 5 | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 2 | - | - |
| % Pedestrians | - | - | - | - | - | 62.5 | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 100.0 | - | - |



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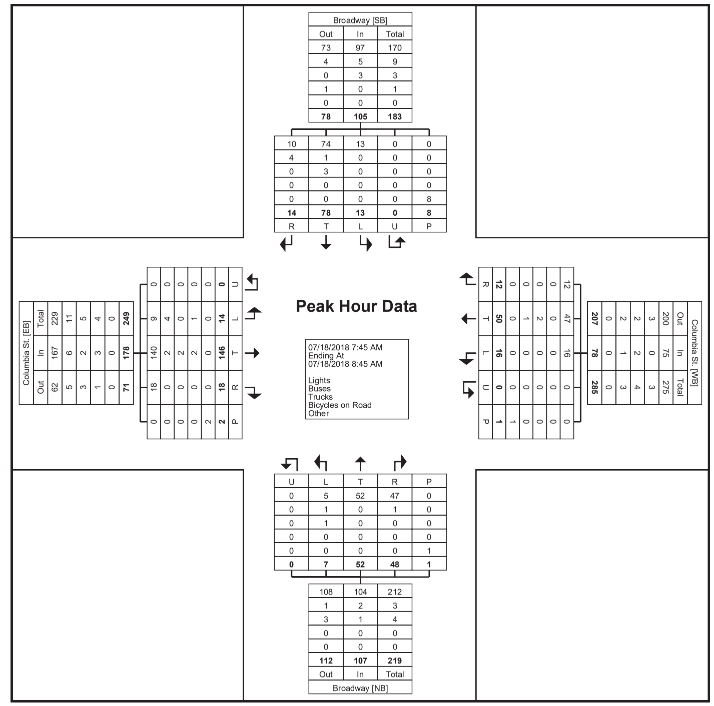


Turning Movement Peak Hour Data Plot (7:45 AM)

Utica, NY
Broadway/Columbia
Wednesday, July 18, 2018
Location: 43.102139, -75.233588

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Count Name: 12. Broadway and Columbia
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 5

## Turning Movement Peak Hour Data (4:00 PM)

| | Broadway Southbound | | | | | | | Columbia St. Westbound | | | | | | | Broadway Northbound | | | | | | | Columbia St. Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Int. Total |
| 4:00 PM | 2 | 1 | 9 | 2 | 0 | 4 | 14 | 14 | 3 | 49 | 4 | 0 | 1 | 70 | 11 | 1 | 26 | 9 | 0 | 4 | 47 | 1 | 0 | 23 | 3 | 0 | 2 | 27 | 158 |
| 4:15 PM | 1 | 1 | 7 | 0 | 0 | 0 | 9 | 9 | 1 | 33 | 6 | 0 | 0 | 49 | 4 | 3 | 12 | 8 | 0 | 7 | 27 | 2 | 1 | 38 | 3 | 0 | 1 | 44 | 129 |
| 4:30 PM | 2 | 0 | 9 | 3 | 0 | 0 | 14 | 15 | 2 | 58 | 3 | 0 | 0 | 78 | 16 | 3 | 49 | 7 | 0 | 2 | 75 | 1 | 1 | 35 | 6 | 0 | 0 | 43 | 210 |
| 4:45 PM | 3 | 1 | 8 | 3 | 0 | 0 | 15 | 10 | 4 | 31 | 4 | 0 | 0 | 49 | 8 | 2 | 12 | 7 | 0 | 1 | 29 | 0 | 0 | 32 | 7 | 0 | 3 | 39 | 132 |
| Total | 8 | 3 | 33 | 8 | 0 | 4 | 52 | 48 | 10 | 171 | 17 | 0 | 1 | 246 | 39 | 9 | 99 | 31 | 0 | 14 | 178 | 4 | 2 | 128 | 19 | 0 | 6 | 153 | 629 |
| Approach % | 15.4 | 5.8 | 63.5 | 15.4 | 0.0 | - | - | 19.5 | 4.1 | 69.5 | 6.9 | 0.0 | - | - | 21.9 | 5.1 | 55.6 | 17.4 | 0.0 | - | - | 2.6 | 1.3 | 83.7 | 12.4 | 0.0 | - | - | - |
| Total % | 1.3 | 0.5 | 5.2 | 1.3 | 0.0 | - | 8.3 | 7.6 | 1.6 | 27.2 | 2.7 | 0.0 | - | 39.1 | 6.2 | 1.4 | 15.7 | 4.9 | 0.0 | - | 28.3 | 0.6 | 0.3 | 20.3 | 3.0 | 0.0 | - | 24.3 | - |
| PHF | 0.667 | 0.750 | 0.917 | 0.667 | 0.000 | - | 0.867 | 0.800 | 0.625 | 0.737 | 0.708 | 0.000 | - | 0.788 | 0.609 | 0.750 | 0.505 | 0.861 | 0.000 | - | 0.593 | 0.500 | 0.500 | 0.842 | 0.679 | 0.000 | - | 0.869 | 0.749 |
| Lights | 6 | 2 | 32 | 7 | 0 | - | 47 | 47 | 10 | 164 | 17 | 0 | - | 238 | 38 | 9 | 97 | 31 | 0 | - | 175 | 4 | 2 | 127 | 16 | 0 | - | 149 | 609 |
| % Lights | 75.0 | 66.7 | 97.0 | 87.5 | - | - | 90.4 | 97.9 | 100.0 | 95.9 | 100.0 | - | - | 96.7 | 97.4 | 100.0 | 98.0 | 100.0 | - | - | 98.3 | 100.0 | 100.0 | 99.2 | 84.2 | - | - | 97.4 | 96.8 |
| Buses | 2 | 1 | 0 | 0 | 0 | - | 3 | 1 | 0 | 0 | 0 | 0 | - | 1 | 1 | 0 | 0 | 0 | 0 | - | 1 | 0 | 0 | 1 | 3 | 0 | - | 4 | 9 |
| % Buses | 25.0 | 33.3 | 0.0 | 0.0 | - | - | 5.8 | 2.1 | 0.0 | 0.0 | 0.0 | - | - | 0.4 | 2.6 | 0.0 | 0.0 | 0.0 | - | - | 0.6 | 0.0 | 0.0 | 0.8 | 15.8 | - | - | 2.6 | 1.4 |
| Trucks | 0 | 0 | 1 | 1 | 0 | - | 2 | 0 | 0 | 5 | 0 | 0 | - | 5 | 0 | 0 | 1 | 0 | 0 | - | 1 | 0 | 0 | 0 | 0 | 0 | - | 0 | 8 |
| % Trucks | 0.0 | 0.0 | 3.0 | 12.5 | - | - | 3.8 | 0.0 | 0.0 | 2.9 | 0.0 | - | - | 2.0 | 0.0 | 0.0 | 1.0 | 0.0 | - | - | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 1.3 |
| Bicycles on Road | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 2 | 0 | 0 | - | 2 | 0 | 0 | 1 | 0 | 0 | - | 1 | 0 | 0 | 0 | 0 | 0 | - | 0 | 3 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 1.2 | 0.0 | - | - | 0.8 | 0.0 | 0.0 | 1.0 | 0.0 | - | - | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.5 |
| Bicycles on Crosswalk | - | - | - | - | - | 1 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | 25.0 | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 7.1 | - | - | - | - | - | - | 0.0 | - | - |
| Pedestrians | - | - | - | - | - | 3 | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 13 | - | - | - | - | - | - | 6 | - | - |
| % Pedestrians | - | - | - | - | - | 75.0 | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 92.9 | - | - | - | - | - | - | 100.0 | - | - |

Utica, NY
Broadway/Columbia
Wednesday, July 18, 2018
Location: 43.102139, -75.233588

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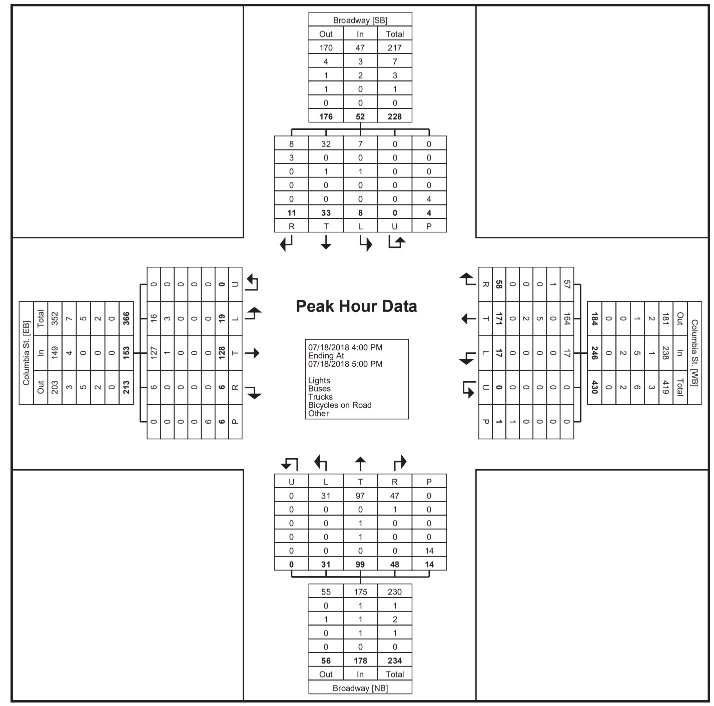
Count Name: 12. Broadway and Columbia
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 6




Turning Movement Peak Hour Data Plot (4:00 PM)

Utica, NY
Broadway/Columbia
Wednesday, July 18, 2018
Location: 43.102139, -75.233588

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Count Name: 12. Broadway and Columbia
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 7

Utica, NY
Broadway/Court
Wednesday, July 18, 2018
Location: 43.10017, -75.235242

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Count Name: 13. Broadway and Court St.
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 1

## Turning Movement Data

| | Broadway Southbound | | | | | | Court St. Westbound | | | | | | Court St. Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Right on Red | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | U-Turn | Peds | App. Total | Thru | Left | U-Turn | Peds | App. Total | Int. Total |
| 7:00 AM | 0 | 1 | 2 | 0 | 3 | 3 | 2 | 0 | 25 | 0 | 0 | 27 | 39 | 13 | 0 | 1 | 52 | 82 |
| 7:15 AM | 2 | 8 | 4 | 0 | 0 | 14 | 2 | 1 | 36 | 0 | 0 | 39 | 47 | 14 | 0 | 1 | 61 | 114 |
| 7:30 AM | 2 | 3 | 1 | 0 | 1 | 6 | 3 | 0 | 53 | 0 | 0 | 56 | 53 | 14 | 0 | 3 | 67 | 129 |
| 7:45 AM | 3 | 7 | 3 | 0 | 0 | 13 | 3 | 0 | 55 | 0 | 0 | 58 | 94 | 34 | 0 | 5 | 128 | 199 |
| Hourly Total | 7 | 19 | 10 | 0 | 4 | 36 | 10 | 1 | 169 | 0 | 0 | 180 | 233 | 75 | 0 | 10 | 308 | 524 |
| 8:00 AM | 3 | 6 | 5 | 0 | 0 | 14 | 6 | 3 | 50 | 0 | 0 | 59 | 76 | 26 | 0 | 5 | 102 | 175 |
| 8:15 AM | 2 | 5 | 6 | 0 | 5 | 13 | 8 | 0 | 44 | 0 | 0 | 52 | 123 | 48 | 0 | 5 | 171 | 236 |
| 8:30 AM | 2 | 11 | 1 | 0 | 0 | 14 | 9 | 0 | 65 | 0 | 1 | 74 | 96 | 25 | 0 | 4 | 121 | 209 |
| 8:45 AM | 4 | 8 | 3 | 0 | 5 | 15 | 7 | 0 | 51 | 0 | 1 | 58 | 88 | 16 | 0 | 2 | 104 | 177 |
| Hourly Total | 11 | 30 | 15 | 0 | 10 | 56 | 30 | 3 | 210 | 0 | 2 | 243 | 383 | 115 | 0 | 16 | 498 | 797 |
| 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 4:00 PM | 10 | 11 | 11 | 0 | 2 | 32 | 11 | 0 | 129 | 0 | 0 | 140 | 87 | 17 | 0 | 2 | 104 | 276 |
| 4:15 PM | 6 | 10 | 18 | 0 | 4 | 34 | 6 | 0 | 69 | 0 | 0 | 75 | 79 | 8 | 0 | 2 | 87 | 196 |
| 4:30 PM | 17 | 7 | 15 | 0 | 0 | 39 | 10 | 0 | 100 | 0 | 0 | 110 | 88 | 15 | 0 | 4 | 103 | 252 |
| 4:45 PM | 6 | 6 | 6 | 0 | 3 | 18 | 6 | 0 | 78 | 0 | 1 | 84 | 78 | 12 | 0 | 7 | 90 | 192 |
| Hourly Total | 39 | 34 | 50 | 0 | 9 | 123 | 33 | 0 | 376 | 0 | 1 | 409 | 332 | 52 | 0 | 15 | 384 | 916 |
| 5:00 PM | 2 | 15 | 5 | 0 | 2 | 22 | 11 | 0 | 87 | 0 | 0 | 98 | 77 | 13 | 0 | 3 | 90 | 210 |
| 5:15 PM | 1 | 10 | 2 | 0 | 6 | 13 | 3 | 0 | 67 | 0 | 0 | 70 | 71 | 15 | 0 | 0 | 86 | 169 |
| 5:30 PM | 7 | 1 | 1 | 0 | 0 | 9 | 6 | 0 | 57 | 0 | 1 | 63 | 51 | 3 | 0 | 4 | 54 | 126 |
| 5:45 PM | 2 | 3 | 3 | 0 | 3 | 8 | 2 | 0 | 52 | 0 | 0 | 54 | 58 | 9 | 0 | 1 | 67 | 129 |
| Hourly Total | 12 | 29 | 11 | 0 | 11 | 52 | 22 | 0 | 263 | 0 | 1 | 285 | 257 | 40 | 0 | 8 | 297 | 634 |
| 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Grand Total | 69 | 112 | 86 | 0 | 34 | 267 | 97 | 4 | 1018 | 0 | 4 | 1119 | 1205 | 282 | 0 | 49 | 1487 | 2873 |
| Approach % | 25.8 | 41.9 | 32.2 | 0.0 | - | - | 8.7 | 0.4 | 91.0 | 0.0 | - | - | 81.0 | 19.0 | 0.0 | - | - | - |
| Total % | 2.4 | 3.9 | 3.0 | 0.0 | - | 9.3 | 3.4 | 0.1 | 35.4 | 0.0 | - | 38.9 | 41.9 | 9.8 | 0.0 | - | 51.8 | - |
| Lights | 68 | 108 | 82 | 0 | - | 258 | 96 | 4 | 1002 | 0 | - | 1102 | 1187 | 276 | 0 | - | 1463 | 2823 |
| % Lights | 98.6 | 96.4 | 95.3 | - | - | 96.6 | 99.0 | 100.0 | 98.4 | - | - | 98.5 | 98.5 | 97.9 | - | - | 98.4 | 98.3 |
| Buses | 0 | 2 | 0 | 0 | - | 2 | 0 | 0 | 6 | 0 | - | 6 | 7 | 3 | 0 | - | 10 | 18 |
| % Buses | 0.0 | 1.8 | 0.0 | - | - | 0.7 | 0.0 | 0.0 | 0.6 | - | - | 0.5 | 0.6 | 1.1 | - | - | 0.7 | 0.6 |
| Trucks | 1 | 2 | 4 | 0 | - | 7 | 1 | 0 | 9 | 0 | - | 10 | 10 | 0 | 0 | - | 10 | 27 |
| % Trucks | 1.4 | 1.8 | 4.7 | - | - | 2.6 | 1.0 | 0.0 | 0.9 | - | - | 0.9 | 0.8 | 0.0 | - | - | 0.7 | 0.9 |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 1 | 0 | - | 1 | 1 | 3 | 0 | - | 4 | 5 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.1 | - | - | 0.1 | 0.1 | 1.1 | - | - | 0.3 | 0.2 |
| Bicycles on Crosswalk | - | - | - | - | 1 | - | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | 2.9 | - | - | - | - | - | 0.0 | - | - | - | - | 0.0 | - | - |
| Pedestrians | - | - | - | - | 33 | - | - | - | - | - | 4 | - | - | - | - | 49 | - | - |
| % Pedestrians | - | - | - | - | 97.1 | - | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - |

Utica, NY
Broadway/Court
Wednesday, July 18, 2018
Location: 43.10017, -75.235242

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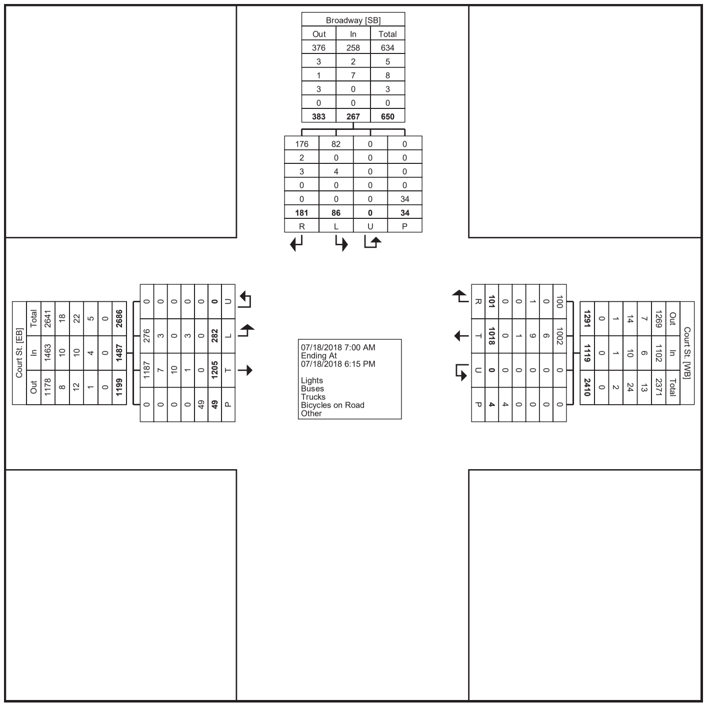
Site Code: Utica, New York
Start Date: 07/18/2018


Turning Movement Data Plot

Utica, NY
Broadway/Court
Wednesday, July 18, 2018
Location: 43.10017, -75.235242

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Count Name: 13. Broadway and Court St.
Site Code: Utica, New York
Start Date: 07/18/2018


## Turning Movement Peak Hour Data (7:45 AM)

| | Broadway Southbound | | | | | | Court St. Westbound | | | | | | Court St. Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Right on Red | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | U-Turn | Peds | App. Total | Thru | Left | U-Turn | Peds | App. Total | Int. Total |
| 7:45 AM | 3 | 7 | 3 | 0 | 0 | 13 | 3 | 0 | 55 | 0 | 0 | 58 | 94 | 34 | 0 | 5 | 128 | 199 |
| 8:00 AM | 3 | 6 | 5 | 0 | 0 | 14 | 6 | 3 | 50 | 0 | 0 | 59 | 76 | 26 | 0 | 5 | 102 | 175 |
| 8:15 AM | 2 | 5 | 6 | 0 | 5 | 13 | 8 | 0 | 44 | 0 | 0 | 52 | 123 | 48 | 0 | 5 | 171 | 236 |
| 8:30 AM | 2 | 11 | 1 | 0 | 0 | 14 | 9 | 0 | 65 | 0 | 1 | 74 | 96 | 25 | 0 | 4 | 121 | 209 |
| Total | 10 | 29 | 15 | 0 | 5 | 54 | 26 | 3 | 214 | 0 | 1 | 243 | 389 | 133 | 0 | 19 | 522 | 819 |
| Approach % | 18.5 | 53.7 | 27.8 | 0.0 | - | - | 10.7 | 1.2 | 88.1 | 0.0 | - | - | 74.5 | 25.5 | 0.0 | - | - | - |
| Total % | 1.2 | 3.5 | 1.8 | 0.0 | - | 6.6 | 3.2 | 0.4 | 26.1 | 0.0 | - | 29.7 | 47.5 | 16.2 | 0.0 | - | 63.7 | - |
| PHF | 0.833 | 0.659 | 0.625 | 0.000 | - | 0.964 | 0.722 | 0.250 | 0.823 | 0.000 | - | 0.821 | 0.791 | 0.693 | 0.000 | - | 0.763 | 0.868 |
| Lights | 9 | 27 | 14 | 0 | - | 50 | 26 | 3 | 206 | 0 | - | 235 | 383 | 131 | 0 | - | 514 | 799 |
| % Lights | 90.0 | 93.1 | 93.3 | - | - | 92.6 | 100.0 | 100.0 | 96.3 | - | - | 96.7 | 98.5 | 98.5 | - | - | 98.5 | 97.6 |
| Buses | 0 | 1 | 0 | 0 | - | 1 | 0 | 0 | 3 | 0 | - | 3 | 2 | 2 | 0 | - | 4 | 8 |
| % Buses | 0.0 | 3.4 | 0.0 | - | - | 1.9 | 0.0 | 0.0 | 1.4 | - | - | 1.2 | 0.5 | 1.5 | - | - | 0.8 | 1.0 |
| Trucks | 1 | 1 | 1 | 0 | - | 3 | 0 | 0 | 5 | 0 | - | 5 | 4 | 0 | 0 | - | 4 | 12 |
| % Trucks | 10.0 | 3.4 | 6.7 | - | - | 5.6 | 0.0 | 0.0 | 2.3 | - | - | 2.1 | 1.0 | 0.0 | - | - | 0.8 | 1.5 |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 |
| Bicycles on Crosswalk | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | 0.0 | - | - | - | - | - | 0.0 | - | - | - | - | 0.0 | - | - |
| Pedestrians | - | - | - | - | 5 | - | - | - | - | - | 1 | - | - | - | - | 19 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - |

Utica, NY
Broadway/Court
Wednesday, July 18, 2018
Location: 43.10017, -75.235242

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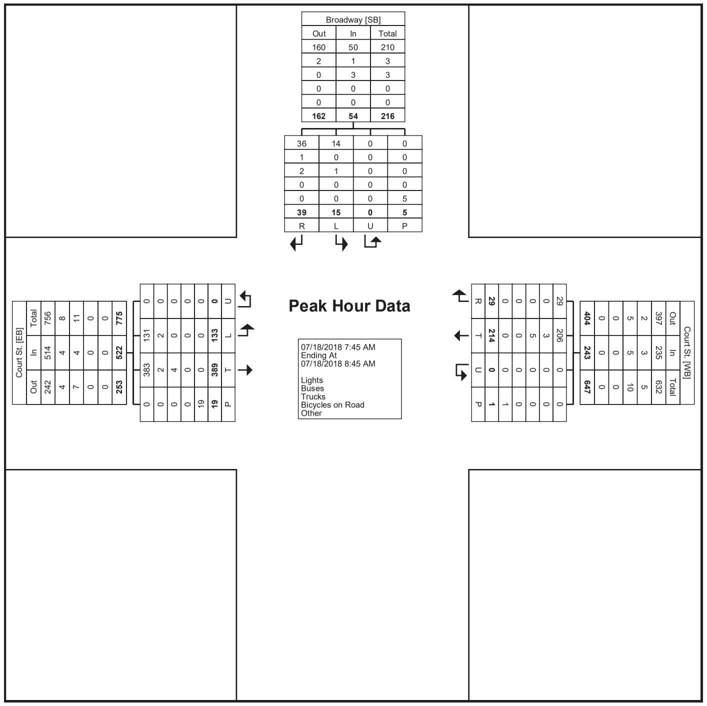
Start Date: 07/18/2018
Page No: 4




Turning Movement Peak Hour Data Plot (7:45 AM)

Utica, NY
Broadway/Court
Wednesday, July 18, 2018
Location: 43.10017, -75.235242

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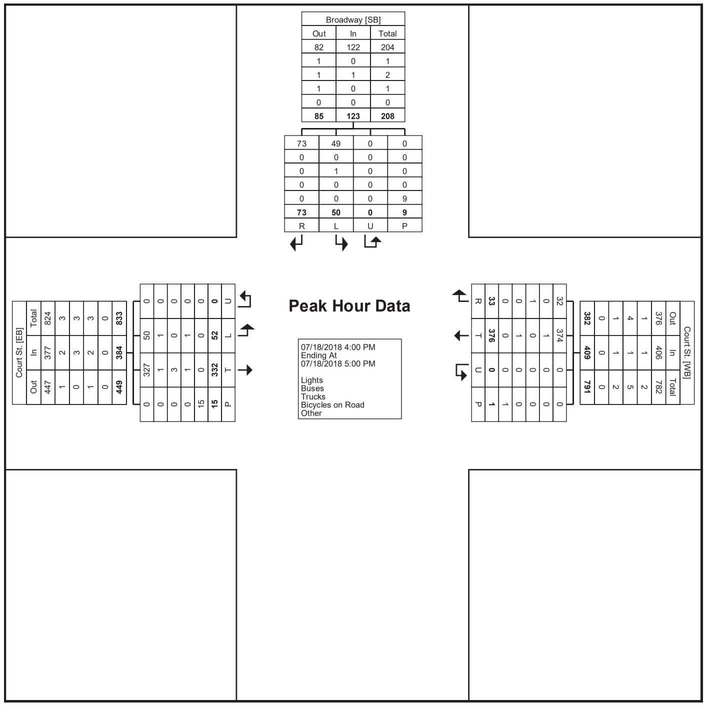
Count Name: 13. Broadway and Court St.
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 5

## Turning Movement Peak Hour Data (4:00 PM)

| | Broadway Southbound | | | | | | Court St. Westbound | | | | | | Court St. Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Right on Red | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | U-Turn | Peds | App. Total | Thru | Left | U-Turn | Peds | App. Total | Int. Total |
| 4:00 PM | 10 | 11 | 11 | 0 | 2 | 32 | 11 | 0 | 129 | 0 | 0 | 140 | 87 | 17 | 0 | 2 | 104 | 276 |
| 4:15 PM | 6 | 10 | 18 | 0 | 4 | 34 | 6 | 0 | 69 | 0 | 0 | 75 | 79 | 8 | 0 | 2 | 87 | 196 |
| 4:30 PM | 17 | 7 | 15 | 0 | 0 | 39 | 10 | 0 | 100 | 0 | 0 | 110 | 88 | 15 | 0 | 4 | 103 | 252 |
| 4:45 PM | 6 | 6 | 6 | 0 | 3 | 18 | 6 | 0 | 78 | 0 | 1 | 84 | 78 | 12 | 0 | 7 | 90 | 192 |
| Total | 39 | 34 | 50 | 0 | 9 | 123 | 33 | 0 | 376 | 0 | 1 | 409 | 332 | 52 | 0 | 15 | 384 | 916 |
| Approach % | 31.7 | 27.6 | 40.7 | 0.0 | - | - | 8.1 | 0.0 | 91.9 | 0.0 | - | - | 86.5 | 13.5 | 0.0 | - | - | - |
| Total % | 4.3 | 3.7 | 5.5 | 0.0 | - | 13.4 | 3.6 | 0.0 | 41.0 | 0.0 | - | 44.7 | 36.2 | 5.7 | 0.0 | - | 41.9 | - |
| PHF | 0.574 | 0.773 | 0.694 | 0.000 | - | 0.788 | 0.750 | 0.000 | 0.729 | 0.000 | - | 0.730 | 0.943 | 0.765 | 0.000 | - | 0.923 | 0.830 |
| Lights | 39 | 34 | 49 | 0 | - | 122 | 32 | 0 | 374 | 0 | - | 406 | 327 | 50 | 0 | - | 377 | 905 |
| % Lights | 100.0 | 100.0 | 98.0 | - | - | 99.2 | 97.0 | - | 99.5 | - | - | 99.3 | 98.5 | 96.2 | - | - | 98.2 | 98.8 |
| Buses | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 1 | 0 | - | 1 | 1 | 1 | 0 | - | 2 | 3 |
| % Buses | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | - | 0.3 | - | - | 0.2 | 0.3 | 1.9 | - | - | 0.5 | 0.3 |
| Trucks | 0 | 0 | 1 | 0 | - | 1 | 1 | 0 | 0 | 0 | - | 1 | 3 | 0 | 0 | - | 3 | 5 |
| % Trucks | 0.0 | 0.0 | 2.0 | - | - | 0.8 | 3.0 | - | 0.0 | - | - | 0.2 | 0.9 | 0.0 | - | - | 0.8 | 0.5 |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 1 | 0 | - | 1 | 1 | 1 | 0 | - | 2 | 3 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | - | 0.3 | - | - | 0.2 | 0.3 | 1.9 | - | - | 0.5 | 0.3 |
| Bicycles on Crosswalk | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | 0.0 | - | - | - | - | - | 0.0 | - | - | - | - | 0.0 | - | - |
| Pedestrians | - | - | - | - | 9 | - | - | - | - | - | 1 | - | - | - | - | 15 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - |




Turning Movement Peak Hour Data Plot (4:00 PM)


Utica, NY
Broadway/Court
Wednesday, July 18, 2018
Location: 43.10017, -75.235242

TRI-STATE TRAFFIC DATA
www.TSTData.com
184 Baker Rd
Coatesville, Pennsylvania, United States 19320
610-466-1469 jvetterlein@tstdata.com
Serving Transportation Professionals Since 1995

## 14. Washington and Liberty - TMC

Wed Jul 18, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549102, Location: 43.103848, -75.23081, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Oriskany/Liberty St. | | | | | | | Oriskany/Liberty St. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Eastbound | | | | | | | Westbound | | | | | | |
| Time | L | T | R | U | RR | **App** | Ped* | L | T | R | U | RR | **App** | Ped* |
| 2018-07-18 7:00AM | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 0 | 181 | 1 | 0 | 0 | **572** | 0 |
| 7:15AM | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 0 | 190 | 2 | 0 | 0 | **502** | 0 |
| 7:30AM | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 0 | 245 | 0 | 0 | 0 | **243** | 0 |
| 7:45AM | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 3 | 283 | 0 | 0 | 1 | **279** | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 3 | 899 | 3 | 0 | 1 | **018** | 0 |
| 8:00AM | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 0 | 187 | 1 | 0 | 0 | **577** | 0 |
| 8:15AM | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 0 | 223 | 1 | 0 | 0 | **224** | 0 |
| 8:30AM | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 0 | 185 | 0 | 0 | 0 | **573** | 0 |
| 8:45AM | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 2 | 200 | 0 | 0 | 0 | **212** | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 2 | 795 | 2 | 0 | 0 | **900** | 0 |
| 9:00AM | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 0 |
| 4:00PM | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 2 | 239 | 0 | 0 | 0 | **245** | 1 |
| 4:15PM | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 2 | 204 | 0 | 0 | 0 | **218** | 0 |
| 4:30PM | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 5 | 241 | 0 | 0 | 0 | **248** | 0 |
| 4:45PM | 0 | 0 | 0 | 0 | 0 | **1** | 1 | 2 | 218 | 1 | 0 | 0 | **225** | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | **1** | 1 | 11 | 902 | 1 | 0 | 0 | **054** | 1 |
| 5:00PM | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 4 | 203 | 1 | 0 | 0 | **217** | 0 |
| 5:15PM | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 0 | 184 | 1 | 0 | 0 | **573** | 0 |
| 5:30PM | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 0 | 156 | 0 | 0 | 0 | **538** | 0 |
| 5:45PM | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 0 | 134 | 0 | 0 | 0 | **564** | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 4 | 677 | 2 | 0 | 0 | **876** | 0 |
| 6:00PM | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 0 |
| **Total** | 0 | 0 | 0 | 0 | 0 | **1** | 1 | 20 | 3273 | 8 | 0 | 1 | **6612** | 1 |
| **% Approach** | 0% | 0% | 0% | 0% | 0% | - | - | 0.6% | 99.1% | 0.2% | 0% | 0% | - | - |
| **% Total** | 0% | 0% | 0% | 0% | 0% | **1%** | - | 0.6% | 95.2% | 0.2% | 0% | 0% | **08.5%** | - |
| **Lights** | 0 | 0 | 0 | 0 | 0 | **1** | - | 19 | 3126 | 6 | 0 | 1 | **6532** | - |
| **% Lights** | 0% | 0% | 0% | 0% | 0% | - | - | 95.0% | 95.5% | 75.0% | 0% | 100% | **03.3%** | - |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 0 | 0 | 0 | 0 | **1** | - | 0 | 127 | 1 | 0 | 0 | **527** | - |
| **% Articulated Trucks and Single-Unit Trucks** | 0% | 0% | 0% | 0% | 0% | - | - | 0% | 3.9% | 12.5% | 0% | 0% | **6.0%** | - |
| **Buses** | 0 | 0 | 0 | 0 | 0 | **1** | - | 0 | 20 | 0 | 0 | 0 | **21** | - |
| **% Buses** | 0% | 0% | 0% | 0% | 0% | - | - | 0% | 0.6% | 0% | 0% | 0% | **1.8%** | - |
| **Bicycles on Road** | 0 | 0 | 0 | 0 | 0 | **1** | - | 1 | 0 | 1 | 0 | 0 | **2** | - |
| **% Bicycles on Road** | 0% | 0% | 0% | 0% | 0% | - | - | 5.0% | 0% | 12.5% | 0% | 0% | **1.5%** | - |
| Pedestrians | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 1 |
| % Pedestrians | - | - | - | - | - | - | 100% | - | - | - | - | - | - | 100% |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 0% | - | - | - | - | - | - | 0% |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn



## 14. Washington and Liberty - TMC

Wed Jul 18, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549102, Location: 43.103848, -75.23081, Site Code: Utica, New York

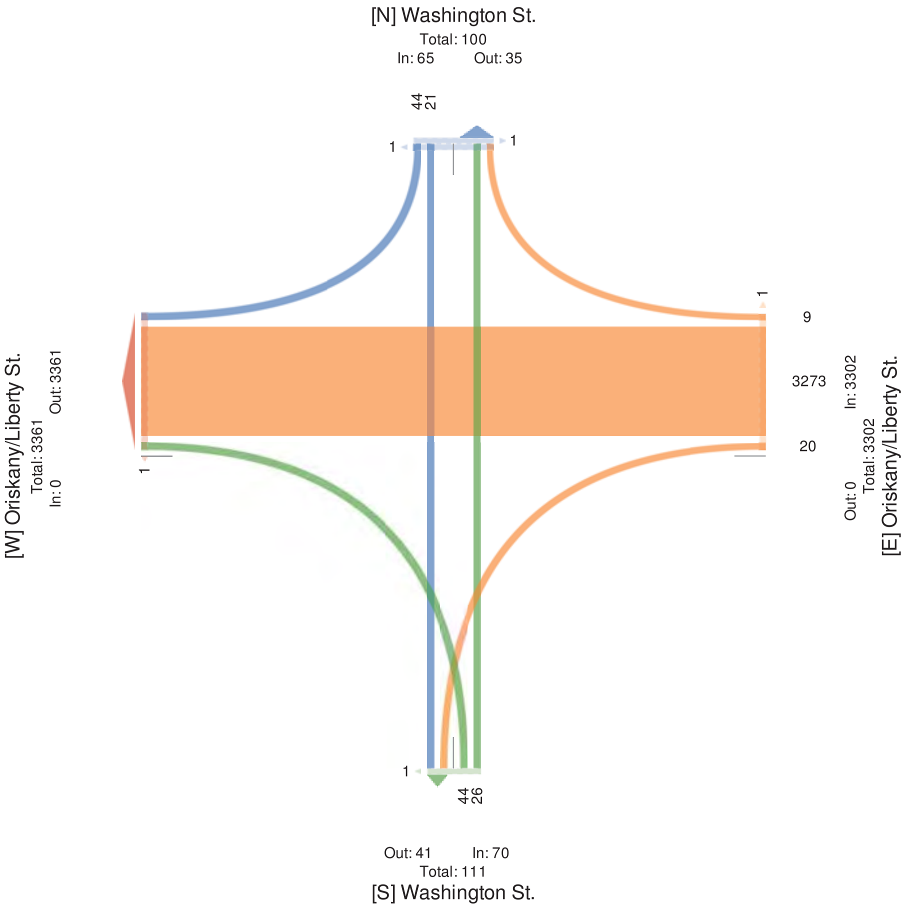
Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Washington St. | | | | | | | Washington St. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Northbound | | | | | | | Southbound | | | | | | | |
| Time | L | T | R | U | RR | **App** | Ped* | L | T | R | U | RR | **App** | Ped* | **Int** |
| 2018-07-18 7:00AM | 1 | 4 | 0 | 0 | 0 | **1** | 0 | 0 | 0 | 1 | 0 | 1 | **6** | 0 | **285** |
| 7:15AM | 3 | 2 | 0 | 0 | 0 | **1** | 0 | 0 | 1 | 1 | 0 | 1 | **4** | 0 | **633** |
| 7:30AM | 2 | 1 | 0 | 0 | 0 | **4** | 0 | 0 | 0 | 1 | 0 | 1 | **6** | 0 | **613** |
| 7:45AM | 4 | 1 | 0 | 0 | 0 | **1** | 0 | 0 | 0 | 2 | 0 | 1 | **4** | 0 | **651** |
| Hourly Total | 10 | 8 | 0 | 0 | 0 | **28** | 0 | 0 | 1 | 5 | 0 | 4 | **23** | 0 | **549** |
| 8:00AM | 3 | 5 | 0 | 0 | 0 | **8** | 0 | 0 | 2 | 2 | 0 | 0 | **9** | 0 | **633** |
| 8:15AM | 4 | 1 | 0 | 0 | 0 | **1** | 0 | 0 | 2 | 0 | 0 | 0 | **6** | 0 | **642** |
| 8:30AM | 3 | 1 | 0 | 0 | 0 | **9** | 0 | 0 | 1 | 1 | 0 | 2 | **9** | 1 | **254** |
| 8:45AM | 2 | 1 | 0 | 0 | 0 | **4** | 0 | 0 | 3 | 2 | 0 | 2 | **7** | 0 | **626** |
| Hourly Total | 12 | 8 | 0 | 0 | 0 | **63** | 0 | 0 | 8 | 5 | 0 | 4 | **27** | 1 | **840** |
| 9:00AM | 0 | 0 | 0 | 0 | 0 | **3** | 0 | 0 | 0 | 0 | 0 | 0 | **3** | 0 | **3** |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | **3** | 0 | 0 | 0 | 0 | 0 | 0 | **3** | 0 | **3** |
| 4:00PM | 6 | 2 | 0 | 0 | 0 | **8** | 0 | 0 | 1 | 0 | 0 | 1 | **6** | 0 | **612** |
| 4:15PM | 2 | 2 | 0 | 0 | 0 | **9** | 1 | 0 | 4 | 4 | 0 | 0 | **8** | 0 | **628** |
| 4:30PM | 2 | 1 | 0 | 0 | 0 | **4** | 0 | 0 | 0 | 4 | 0 | 4 | **8** | 0 | **617** |
| 4:45PM | 0 | 0 | 0 | 0 | 0 | **3** | 0 | 0 | 3 | 1 | 0 | 1 | **1** | 0 | **660** |
| Hourly Total | 10 | 5 | 0 | 0 | 0 | **21** | 1 | 0 | 8 | 9 | 0 | 6 | **64** | 0 | **516** |
| 5:00PM | 4 | 2 | 0 | 0 | 0 | **0** | 0 | 0 | 2 | 1 | 0 | 3 | **0** | 1 | **663** |
| 5:15PM | 5 | 0 | 0 | 0 | 0 | **1** | 0 | 0 | 2 | 1 | 0 | 1 | **9** | 0 | **259** |
| 5:30PM | 1 | 0 | 0 | 0 | 0 | **2** | 0 | 0 | 0 | 0 | 0 | 2 | **6** | 0 | **215** |
| 5:45PM | 2 | 3 | 0 | 0 | 0 | **1** | 0 | 0 | 0 | 1 | 0 | 2 | **4** | 0 | **296** |
| Hourly Total | 12 | 5 | 0 | 0 | 0 | **27** | 0 | 0 | 4 | 3 | 0 | 8 | **21** | 1 | **721** |
| 6:00PM | 0 | 0 | 0 | 0 | 0 | **3** | 0 | 0 | 0 | 0 | 0 | 0 | **3** | 0 | **3** |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | **3** | 0 | 0 | 0 | 0 | 0 | 0 | **3** | 0 | **3** |
| **Total** | 44 | 26 | 0 | 0 | 0 | **73** | 1 | 0 | 21 | 22 | 0 | 22 | **01** | 2 | **4947** |
| **% Approach** | 62.9% | 37.1% | 0% | 0% | 0% | - | - | 0% | 32.3% | 33.8% | 0% | 33.8% | - | - | - |
| **% Total** | 1.3% | 0.8% | 0% | 0% | 0% | **6.3%** | - | 0% | 0.6% | 0.6% | 0% | 0.6% | **2.5%** | - | - |
| **Lights** | 42 | 23 | 0 | 0 | 0 | **01** | - | 0 | 19 | 20 | 0 | 19 | **18** | - | 3275 |
| **% Lights** | 95.5% | 88.5% | 0% | 0% | 0% | **56.5%** | - | 0% | 90.5% | 90.9% | 0% | 86.4% | **85.6%** | - | 95.3% |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 2 | 0 | 0 | 0 | **6** | - | 0 | 1 | 2 | 0 | 3 | **0** | - | 136 |
| **% Articulated Trucks and Single-Unit Trucks** | 0% | 7.7% | 0% | 0% | 0% | **6.5%** | - | 0% | 4.8% | 9.1% | 0% | 13.6% | **5.6%** | - | 4.0% |
| **Buses** | 2 | 0 | 0 | 0 | 0 | **6** | - | 0 | 0 | 0 | 0 | 0 | **3** | - | 22 |
| **% Buses** | 4.5% | 0% | 0% | 0% | 0% | **6.5%** | - | 0% | 0% | 0% | 0% | 0% | **3%** | - | 0.6% |
| **Bicycles on Road** | 0 | 1 | 0 | 0 | 0 | **2** | - | 0 | 1 | 0 | 0 | 0 | **2** | - | 4 |
| **% Bicycles on Road** | 0% | 3.8% | 0% | 0% | 0% | **2.9%** | - | 0% | 4.8% | 0% | 0% | 0% | **2.1%** | - | 0.1% |
| Pedestrians | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 2 | |
| % Pedestrians | - | - | - | - | - | - | 100% | - | - | - | - | - | - | 100% | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 0% | - | - | - | - | - | - | 0% | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

**14. Washington and Liberty - TMC**
Wed Jul 18, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549102, Location: 43.103848, -75.23081, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US






**14. Washington and Liberty - TMC**
Wed Jul 18, 2018
PMaek( 4:3-0PM 583-0PM) 5Overkll aek( Hour
Pll AlkCCeC4s Li ghC, Prhtulkhed c rut(CkTd nITi le5S Tlhc rut(C, UuCeC, aedeChrlkTC, Ult Bt leC oTyokd, Ult Bt leCoT AroCCRkl()
Pll MoveweThC
ml 3D9. 102, sotkhloT39-610-898, 5: D62-081, nlte Aode3Shtk, 7eR Nor(

arovlded YB3c rl5nhkhe c rkbbt I khk, mTt6
189 Uk(er yokd,
AokheCvllle, aP, 1.-20, Sn

| s ei / I lret hloT / c lwe | OrlC(kTBfs LYerhBnl6 / kChYouTd s | c | y | S | yy | App | aedE | OrlC(kTBfs LYerhBnl6 WeChYouTd s | c | y | S | yy | App | aedE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20185: 518 : 3-0PM | 0 | 0 | 0 | 0 | 0 | **0** | 0 | 0 | 29D | 0 | 0 | 0 | **245** | 0 |
| : 39DPM | 0 | 0 | 0 | 0 | 0 | **0** | 0 | - | 28- | 0 | 0 | 1 | **287** | 0 |
| 8300PM | 0 | 0 | 0 | 0 | 0 | **0** | 0 | 0 | 18: | 1 | 0 | 0 | **188** | 0 |
| 831DPM | 0 | 0 | 0 | 0 | 0 | **0** | 0 | 0 | 22- | 1 | 0 | 0 | **224** | 0 |
| **Total** | 0 | 0 | 0 | 0 | 0 | **0** | 0 | - | .-8 | 2 | 0 | 1 | **944** | 0 |
| **% Approach** | 0* | 0* | 0* | 0* | 0* | - | 5 | 06-* | ..69* | 062* | 0* | 061* | - | 5 |
| **% Total** | 0* | 0* | 0* | 0* | 0* | **0%** | 5 | 06-* | .%61* | 062* | 0* | 061* | **96.7%** | 5 |
| **PHF** | 5 | 5 | 5 | 5 | 5 | - | 5 | 062D0 | 0682. | 06D00 | 5 | 062D0 | **0.822** | 5 |
| **Lights** | 0 | 0 | 0 | 0 | 0 | **0** | 5 | - | 88% | 2 | 0 | 1 | **892** | 5 |
| **% Lights** | 0* | 0* | 0* | 0* | 0* | - | 5 | 100* | .96D* | 100* | 0* | 100* | **94.5%** | 5 |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 0 | 0 | 0 | 0 | **0** | 5 | 0 | 92 | 0 | 0 | 0 | **42** | 5 |
| **% Articulated Trucks and Single-Unit Trucks** | 0* | 0* | 0* | 0* | 0* | - | 5 | 0* | 96D* | 0* | 0* | 0* | **4.4%** | 5 |
| **Buses** | 0 | 0 | 0 | 0 | 0 | **0** | 5 | 0 | 10 | 0 | 0 | 0 | **10** | 5 |
| **% Buses** | 0* | 0* | 0* | 0* | 0* | - | 5 | 0* | 161* | 0* | 0* | 0* | **1.1%** | 5 |
| **Bicycles on Road** | 0 | 0 | 0 | 0 | 0 | **0** | 5 | 0 | 0 | 0 | 0 | 0 | **0** | 5 |
| **% Bicycles on Road** | 0* | 0* | 0* | 0* | 0* | - | 5 | 0* | 0* | 0* | 0* | 0* | **0%** | 5 |
| aedeChrlkTC | 5 | 5 | 5 | 5 | 5 | 5 | 0 | 5 | 5 | 5 | 5 | 5 | 5 | 0 |
| * aedeChrlkTC | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Ult Bt leCoT AroCCRkl( | 5 | 5 | 5 | 5 | 5 | 5 | 0 | 5 | 5 | 5 | 5 | 5 | 5 | 0 |
| * Ult Bt leCoT AroCCRkl( | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |

EaedeChrlkTCkTd Ult Bt leCoT AroCCRkl(6s3s elh, y 3y Li gh, y y 3y Li ghoTred, c 3c gru, S 3S 5c urT

## 14. Washington and Liberty - TMC

Wed Jul 18, 2018
P M aek( 4: 3-0P M 583-0P M) 5Overkll aek( Hour
Pll AlkCCeC4s Li ghC, PrhLtulkhed c rut (CkTd nITi le5S TLhc rut (C, UuCeC, aedeChrIkTC, ULt Bt leC
oT y okd, ULt Bt leCoT AroCCRkl( )
Pll MoveweThC
nl 3D9. 102, s ot khLoT39- 6l0- 898, 5: D62- 081, n Lle Aode3S hLt k, 7 eR Nor(

arovIded YB3c rI5n hkhe c rkbbIt
I khk, mTt 6
189 Uk(er y okd,
AokheGvIlle, aP, 1. - 20, Sn

| s e i / I Lret hLoT / c Lw e | WkCg LTi hoT nh6 7 orhg YouTd | | | | | | | WkCg LTi hoT nh6 nouhg YouTd | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | s | c | y | S | yy | App | aedf | s | c | y | S | yy | App | aedf | Int |
| 20185: 518 : 3-0PM | 2 | 1 | 0 | 0 | 0 | **2** | 0 | 0 | 0 | 1 | 0 | 1 | **5** | 0 | **517** |
| : 39DPM | 9 | 1 | 0 | 0 | 0 | **1** | 0 | 0 | 0 | 2 | 0 | 1 | **2** | 0 | **541** |
| 8300PM | - | D | 0 | 0 | 0 | **8** | 0 | 0 | 2 | 2 | 0 | 0 | **0** | 0 | **577** |
| 831DPM | 9 | 1 | 0 | 0 | 0 | **1** | 0 | 0 | 2 | 0 | 0 | 0 | **5** | 0 | **523** |
| **6 9tTo** | 1- | 8 | 0 | 0 | 0 | **53** | 0 | 0 | 9 | D | 0 | 2 | **33** | 0 | **4al** |
| **% Appr9Tch** | *16 % | - 861% | 0% | 0% | 0% | - | 5 | 0% | - *69% | 9D6D% | 0% | 1862% | - | 5 | 5 |
| **% 6 9tTo** | 16- % | 068% | 0% | 0% | 0% | **5.5%** | 5 | 0% | 069% | 06D% | 0% | 062% | **3.3%** | 5 | 5 |
| **PHF** | 0681- | 06900 | 5 | 5 | 5 | **7.l 1l** | 5 | 5 | 06D00 | 06*2D | 5 | 06D00 | **7.l 88** | 5 | 0682: |
| **Lights** | 1- | : | 0 | 0 | 0 | **57** | 5 | 0 | 9 | 9 | 0 | 1 | **4** | 5 | . 21 |
| **% Lights** | 100% | 8: 6D% | 0% | 0% | 0% | **41.5%** | 5 | 0% | 100% | 8060% | 0% | D060% | **83.8%** | 5 | . 969% |
| **ArticuoTted 6 rucks Tnd Singœ-Unit 6 rucks** | 0 | 1 | 0 | 0 | 0 | **3** | 5 | 0 | 0 | 1 | 0 | 1 | **5** | 5 | 9D |
| **% ArticuoTted 6 rucks Tnd Singœ-Unit 6 rucks** | 0% | 126D% | 0% | 0% | 0% | **0.8%** | 5 | 0% | 0% | 2060% | 0% | D060% | **38.5%** | 5 | 96*% |
| **Buses** | 0 | 0 | 0 | 0 | 0 | **7** | 5 | 0 | 0 | 0 | 0 | 0 | **7** | 5 | 10 |
| **% Buses** | 0% | 0% | 0% | 0% | 0% | **7%** | 5 | 0% | 0% | 0% | 0% | 0% | **7%** | 5 | 160% |
| **Bicycœs 9n R9Td** | 0 | 0 | 0 | 0 | 0 | **7** | 5 | 0 | 0 | 0 | 0 | 0 | **7** | 5 | 0 |
| **% Bicycœs 9n R9Td** | 0% | 0% | 0% | 0% | 0% | **7%** | 5 | 0% | 0% | 0% | 0% | 0% | **7%** | 5 | 0% |
| aedeChrIkTC | 5 | 5 | 5 | 5 | 5 | 5 | 0 | 5 | 5 | 5 | 5 | 5 | 5 | 0 | |
| % aedeChrIkTC | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| ULt Bt leCoT AroCCRkl( | 5 | 5 | 5 | 5 | 5 | 5 | 0 | 5 | 5 | 5 | 5 | 5 | 5 | 0 | |
| % ULt Bt leCoT AroCCRkl( | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |

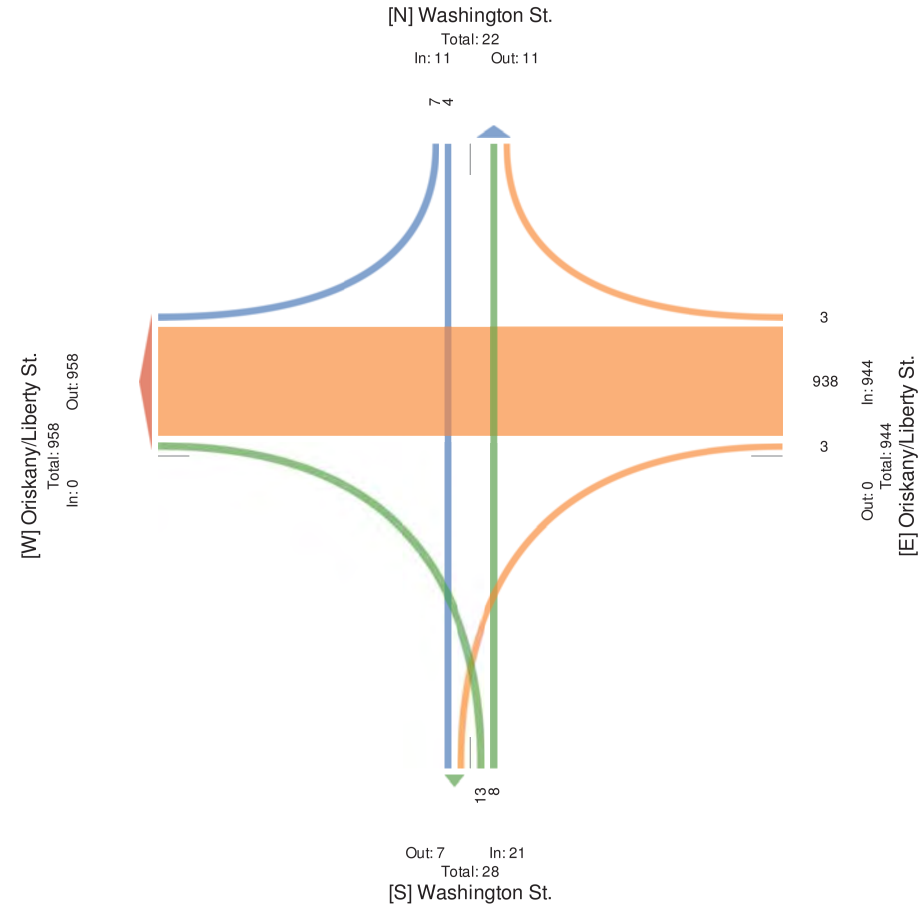
f aedeChrIkTCkTd ULt Bt leCoT AroCCRkl( 6s 3s eLh, y 3y Li gh, y y 3y Li ghoT red, c 3c gru, S 3S 5c urT



## 14. Washington and Liberty - TMC

Wed Jul 18, 2018
AM Peak (7:30AM - 8:30AM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549102, Location: 43.103848, -75.23081, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US



## 14. Washington and Liberty - TMC

Wed Jul 18, 2018
Forced Peak (7:45AM - 8:45AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549102, Location: 43.103848, -75.23081, Site Code: Utica, 6 ew Nork

Provided Yy: Tri-State Trabic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | f riskanyLiYerty St. | | | | | | | f riskanyLiYerty St. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | / astYound | | | | | | | WestYound | | | | | | |
| Time | L | T | R | U | RR | App | PedE | L | T | R | U | RR | App | PedE |
| 2018-07-18 7:45AM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 3 | 283 | 0 | 0 | 1 | 403 | 0 |
| 8:00AM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 187 | 1 | 0 | 0 | 700 | 0 |
| 8:15AM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 223 | 1 | 0 | 0 | 449 | 0 |
| 8:30AM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 185 | 0 | 0 | 0 | 701 | 0 |
| 5 o lot | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 3 | 878 | 2 | 0 | 1 | 009 | 0 |
| a lApp%6o r | 0* | 0* | 0* | 0* | 0* | c | - | 0.3* | 99.3* | 0.2* | 0* | 0.1* | c | - |
| a l5 6Tot | 0* | 0* | 0* | 0* | 0* | 2a | - | 0.3* | 95.5* | 0.2* | 0* | 0.1* | h- 84a | - |
| . PH | - | - | - | - | - | c | - | 0.250 | 0.77% | 0.500 | - | 0.250 | 28832 | - |
| FLi rTg | 0 | 0 | 0 | 0 | 0 | 2 | - | 3 | 832 | 2 | 0 | 1 | 0s0 | - |
| a lFLi rTg | 0* | 0* | 0* | 0* | 0* | c | - | 100* | 94.8* | 100* | 0* | 100* | h980a | - |
| A%L utoTedl5 %u kglondlSIni tecUnIT5 %u kg | 0 | 0 | 0 | 0 | 0 | 2 | - | 0 | 41 | 0 | 0 | 0 | 97 | - |
| a lA%L utoTedl5 %u kglondlSIni tecUnIT5 %u kg | 0* | 0* | 0* | 0* | 0* | c | - | 0* | 4.7* | 0* | 0* | 0* | 98 a | - |
| Bugeg | 0 | 0 | 0 | 0 | 0 | 2 | - | 0 | 5 | 0 | 0 | 0 | 1 | - |
| a lBugeg | 0* | 0* | 0* | 0* | 0* | c | - | 0* | 0.%* | 0* | 0* | 0* | 28 a | - |
| BL y tegl6nlR6od | 0 | 0 | 0 | 0 | 0 | 2 | - | 0 | 0 | 0 | 0 | 0 | 2 | - |
| a lBL y tegl6nlR6od | 0* | 0* | 0* | 0* | 0* | c | - | 0* | 0* | 0* | 0* | 0* | 2a | - |
| Pedestrians | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 |
| * Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 |
| * Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

E Pedestrians and Bicycles on Crosswalk. L: Lelt, R: Right, RR: Right on red, T: Thru, U: U-Turn



## 14. Washington and Liberty - TMC

Wed Jul 18, 2018
Forced Peak (7:45AM - 8:45AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549102, Location: 43.103848, -75.23081, Site Code: Utica, 6 ew Nork

Provided Yy: Tri-State Trabic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

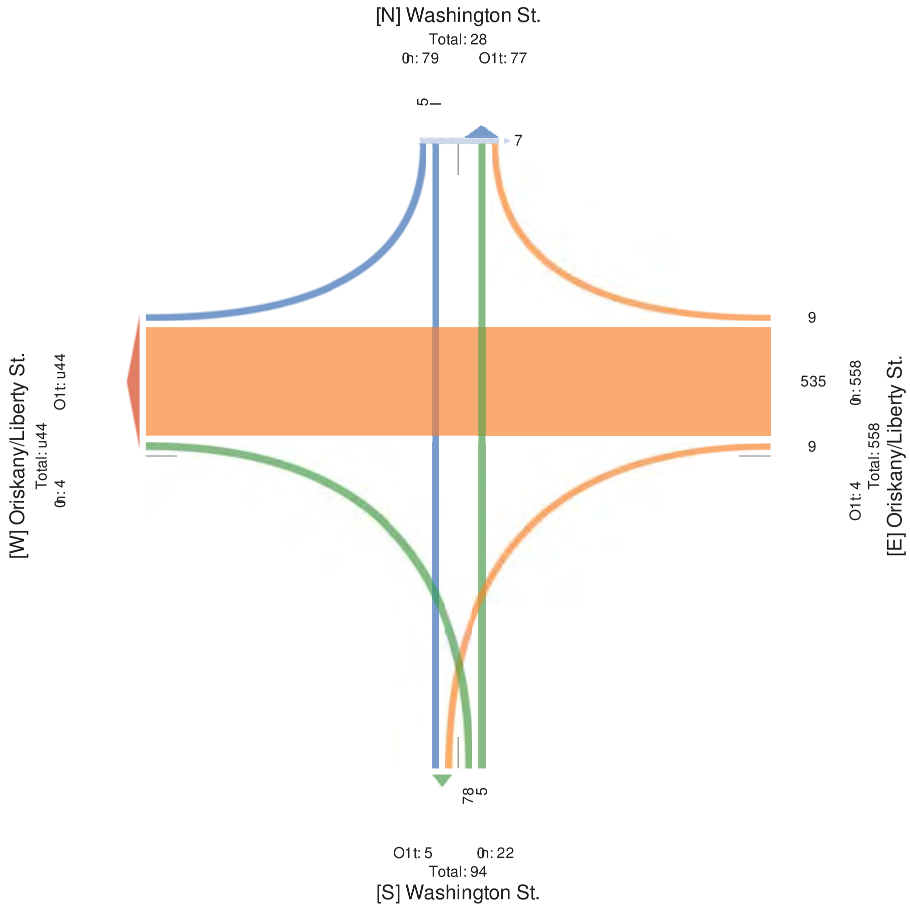
| Leg | Washington St. | | | | | | | Washington St. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | 6 orth Yound | | | | | | | South Yound | | | | | | | |
| Time | L | T | R | U | RR | App | Pedf | L | T | R | U | RR | App | Pedf | Int |
| 2018-07-18 7:45AM | 4 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 1 | 5 | 0 | 172 |
| 8:00AM | 3 | 5 | 0 | 0 | 0 | 4 | 0 | 0 | 2 | 2 | 0 | 0 | 8 | 0 | 100 |
| 8:15AM | 4 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 153 |
| 8:30AM | 3 | 1 | 0 | 0 | 0 | 8 | 0 | 0 | 1 | 1 | 0 | 2 | 8 | 1 | 375 |
| 6 9tı | 14 | 8 | 0 | 0 | 0 | 11 | 0 | 0 | 5 | 5 | 0 | 3 | 35 | 1 | 737 |
| a App%9T r | *3.*% | 3*.4% | 0% | 0% | 0% | c | - | 0% | 38.5% | 38.5% | 0% | 23.1% | c | - | - |
| a l6 9tTo | 1.5% | 0.9% | 0% | 0% | 0% | 1l8a | - | 0% | 0.5% | 0.5% | 0% | 0.3% | 3l8a | - | - |
| - . P | 0.875 | 0.400 | - | - | - | 0lH44 | - | - | 0.*25 | 0.*25 | - | 0.375 | 0l435 | - | 0.779 |
| FLi rtg | 14 | 7 | 0 | 0 | 0 | 13 | - | 0 | 4 | 4 | 0 | 2 | 30 | - | 8*9 |
| a lFLi rtg | 100% | 87.5% | 0% | 0% | 0% | 72l2a | - | 0% | 80.0% | 80.0% | 0% | **.7% | sH7a | - | 94.*% |
| A%L uoTtedl6 %u kglTndlSIni œcUnItl6 %u kg | 0 | 1 | 0 | 0 | 0 | 3 | - | 0 | 1 | 1 | 0 | 1 | 5 | - | 45 |
| a lA%L uoTtedl6 %u kglTndlSIni œcUnItl6 %u kg | 0% | 12.5% | 0% | 0% | 0% | 8l2a | - | 0% | 20.0% | 20.0% | 0% | 33.3% | 15l3a | - | 4.9% |
| Bugeg | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | - | 5 |
| a lBugeg | 0% | 0% | 0% | 0% | 0% | 0a | - | 0% | 0% | 0% | 0% | 0% | 0a | - | 0.5% |
| BL y œgl9nlR9Td | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 |
| a lBL y œgl9nlR9Td | 0% | 0% | 0% | 0% | 0% | 0a | - | 0% | 0% | 0% | 0% | 0% | 0a | - | 0% |
| Pedestrians | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 1 | |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | 100% | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | 0% | - |

f Pedestrians and Bicycles on Crosswalk. L: Lelt, R: Right, RR: Right on red, T: Thru, U: U-Turn

## 14. Washington and Liberty - TMC

Wed Jul 18, 2018
Forced Peak (7:45AM - 8:45AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549102, Location: 43.103848, -75.23081, Site Code: Utica, New York


Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US




## 14. Washington and Liberty - TMC

Wed Jul 18, 2018
AM AePa k( AM 7: AM3
- ll ) lPCCeCksLi ghC, - thlculPhed c turaCPTd nlTi le7S Tllnc turaC, UuCeC, AedeChtlPTC, UlrBrleC yT o yPd, UlrBrleCyT ) tyCCRPla3
- ll Mywe v eThC
ml D ( 5102, syrPhlyTD( 491048( 8, 7. : 924081, nlle ) ydeDShlrP, 6 eR Nyta


Atywlded YBD: tl7nhPhe c tPblr
I PhP, mTr9
18( UPaet o yPd,
) yPheCwllle, A- , 15420, Sn


| s ei<br>I lter hlyT | f tlCaPTBG9 LYethBnl9<br>/ PChYyuTd | | | | | | | f tlCaPTBG9 LYethBnl9<br>We ChYyuTd | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| c lv e | s | c | o | S | oo | **App** | AedE | s | c | o | S | oo | **App** | AedE |
| 20187l0. 718 ( lD0AM | 0 | 0 | 0 | 0 | 0 | **0** | 0 | 2 | 245 | 0 | 0 | 0 | **241** | 1 |
| ( D: AM | 0 | 0 | 0 | 0 | 0 | **0** | 0 | 2 | 20( | 0 | 0 | 0 | **206** | 0 |
| ( l40 AM | 0 | 0 | 0 | 0 | 0 | **0** | 0 | : | 2( 1 | 0 | 0 | 0 | **246** | 0 |
| ( lD: AM | 0 | 0 | 0 | 0 | 0 | **0** | 1 | 2 | 218 | 1 | 0 | 0 | **221** | 0 |
| **Total** | 0 | 0 | 0 | 0 | 0 | **0** | 1 | 11 | 502 | 1 | 0 | 0 | **914** | 1 |
| **% Approach** | 0* | 0* | 0* | 0* | 0* | - | 7 | 192* | 589 * | 091* | 0* | 0* | - | 7 |
| **% Total** | 0* | 0* | 0* | 0* | 0* | **0%** | 7 | 192* | 5( 9 * | 091* | 0* | 0* | **96.0%** | 7 |
| **PHF** | 7 | 7 | 7 | 7 | 7 | - | 7 | 09 : 0 | 0954% | 092 : 0 | 7 | 7 | **0.929** | 7 |
| **Lights** | 0 | 0 | 0 | 0 | 0 | **0** | 7 | 10 | 8. 2 | 1 | 0 | 0 | **883** | 7 |
| **% Lights** | 0* | 0* | 0* | 0* | 0* | - | 7 | 5095* | 5%9 * | 100* | 0* | 0* | **96.6%** | 7 |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 0 | 0 | 0 | 0 | **0** | 7 | 0 | 25 | 0 | 0 | 0 | **29** | 7 |
| **% Articulated Trucks and Single-Unit Trucks** | 0* | 0* | 0* | 0* | 0* | - | 7 | 0* | 492* | 0* | 0* | 0* | **3.2%** | 7 |
| **Buses** | 0 | 0 | 0 | 0 | 0 | **0** | 7 | 0 | 1 | 0 | 0 | 0 | **1** | 7 |
| **% Buses** | 0* | 0* | 0* | 0* | 0* | - | 7 | 0* | 091* | 0* | 0* | 0* | **0.1%** | 7 |
| **Bicycles on Road** | 0 | 0 | 0 | 0 | 0 | **0** | 7 | 1 | 0 | 0 | 0 | 0 | **1** | 7 |
| **% Bicycles on Road** | 0* | 0* | 0* | 0* | 0* | - | 7 | 591* | 0* | 0* | 0* | 0* | **0.1%** | 7 |
| AedeChtlPTC | 7 | 7 | 7 | 7 | 7 | 7 | 1 | 7 | 7 | 7 | 7 | 7 | 7 | 1 |
| * AedeChtlPTC | 7 | 7 | 7 | 7 | 7 | 7 | 100* | 7 | 7 | 7 | 7 | 7 | 7 | 100* |
| UlrBrleCyT ) tyCCRPla | 7 | 7 | 7 | 7 | 7 | 7 | 0 | 7 | 7 | 7 | 7 | 7 | 7 | 0 |
| * UlrBrleCyT ) tyCCRPla | 7 | 7 | 7 | 7 | 7 | 7 | 0* | 7 | 7 | 7 | 7 | 7 | 7 | 0* |

[E] AedeChtlPTCPTd UlrBrleCyT ) tyCCRPla9s Ds elh, o Do Li gh, o o Do Li ghyTted, c Dc gtu, S DS 7c utT

**14. Washington and Liberty - TMC**
Wed Jul 18, 2018
AM AePa k( AM 7: AM3
- ll ) lPCCeCks Li ghC, - thIrulPhe d c turaCPTd nITi le7S TIhc turaC, UuCeC, AedeChtIPTC, UIr BrleC yT o yPd, UIr BrleCyT ) tyCCRPla3
- ll Mywev eThC
mI D ( 5102, syrPhIyTD( 491048( 8, 7. : 924081, n Ihe ) ydeDS hIrP, 6 eR Nyta

At ywlded YBDc tIZnhPhe c tPbbIr
I PhP, mTr9
18( UPaet o yPd,
) yPhe Gwlle, A- , 15420, S n

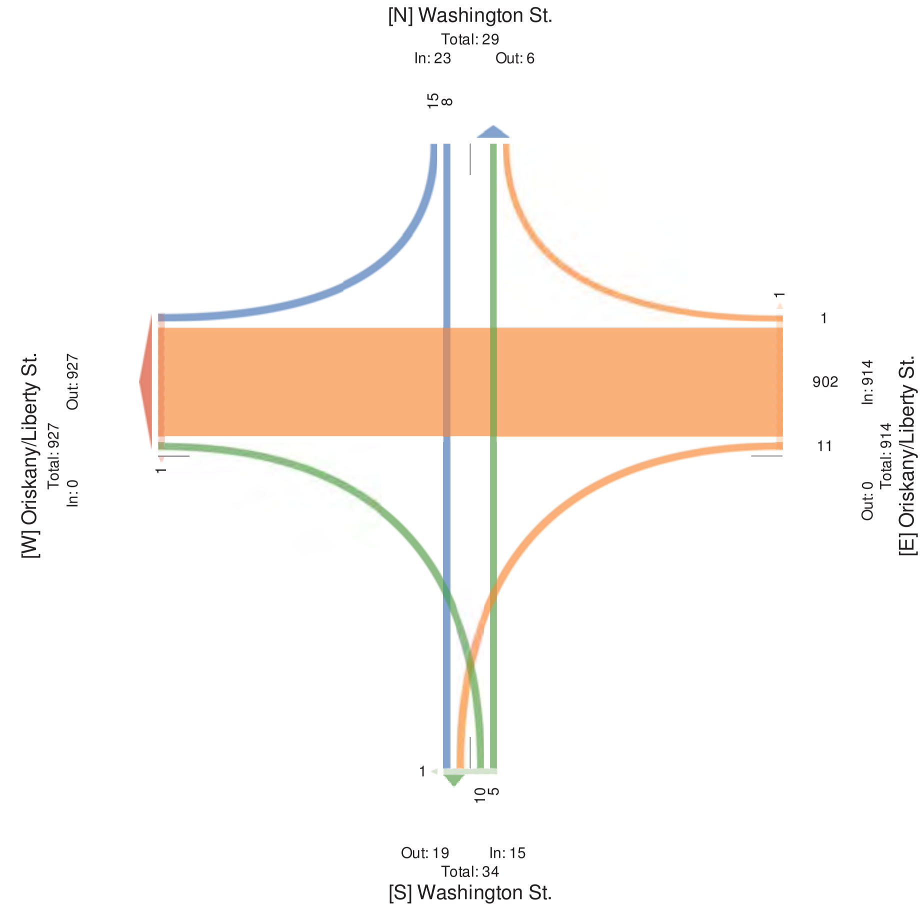
| s e i<br>I IterhIyT | WPCgITi IyT nI9<br>6ytIhg YyuTd | | | | | | | WPCgITi IyT nI9<br>nyuhg YyuTd | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| c Iv e | s | c | o | S | oo | **App** | Aedf | s | c | o | S | oo | **App** | Aedf | **Int** |
| 201870. 718 ( D0 AM | * | 2 | 0 | 0 | 0 | **2** | 0 | 0 | 1 | 0 | 0 | 1 | **5** | 0 | **517** |
| ( D: AM | 2 | 2 | 0 | 0 | 0 | **4** | 1 | 0 | ( | ( | 0 | 0 | **2** | 0 | **572** |
| ( D40 AM | 2 | 1 | 0 | 0 | 0 | **8** | 0 | 0 | 0 | ( | 0 | ( | **2** | 0 | **510** |
| ( D: AM | 0 | 0 | 0 | 0 | 0 | **3** | 0 | 0 | 4 | 1 | 0 | 1 | **1** | 0 | **556** |
| **9 ıtoa** | 10 | : | 0 | 0 | 0 | **71** | 1 | 0 | 8 | 5 | 0 | * | **58** | 0 | **l 15** |
| **% ApprToch** | **9 % | 4494% | 0% | 0% | 0% | - | 7 | 0% | 4( 98% | 4591% | 0% | 2*91% | - | 7 | 7 |
| **% 9 Ttoa** | 191% | 09 % | 0% | 0% | 0% | **7.6%** | 7 | 0% | 098% | 095% | 0% | 09*% | **5.4%** | 7 | 7 |
| **PHF** | 09( 1. | 09*2: | 7 | 7 | 7 | **3.46l** | 7 | 7 | 09 00 | 09 *4 | 7 | 094. : | **3.07l** | 7 | 0952* |
| **Lights** | 10 | ( | 0 | 0 | 0 | **74** | 7 | 0 | 8 | 8 | 0 | * | **55** | 7 | 515 |
| **% Lights** | 100% | 8090% | 0% | 0% | 0% | **l 8.8%** | 7 | 0% | 100% | 8895% | 0% | 100% | **l 1.0%** | 7 | 5*9 % |
| **Articuaoted 9 rucks ond Singæ-Unit 9 rucks** | 0 | 1 | 0 | 0 | 0 | **7** | 7 | 0 | 0 | 1 | 0 | 0 | **7** | 7 | 41 |
| **% Articuaoted 9 rucks ond Singæ-Unit 9 rucks** | 0% | 2090% | 0% | 0% | 0% | **6.0%** | 7 | 0% | 0% | 1191% | 0% | 0% | **4.8%** | 7 | 494% |
| **Buses** | 0 | 0 | 0 | 0 | 0 | **3** | 7 | 0 | 0 | 0 | 0 | 0 | **3** | 7 | 1 |
| **% Buses** | 0% | 0% | 0% | 0% | 0% | **3%** | 7 | 0% | 0% | 0% | 0% | 0% | **3%** | 7 | 091% |
| **Bicycæs Tn RTod** | 0 | 0 | 0 | 0 | 0 | **3** | 7 | 0 | 0 | 0 | 0 | 0 | **3** | 7 | 1 |
| **% Bicycæs Tn RTod** | 0% | 0% | 0% | 0% | 0% | **3%** | 7 | 0% | 0% | 0% | 0% | 0% | **3%** | 7 | 091% |
| AedeChtIPTC | 7 | 7 | 7 | 7 | 7 | 7 | 1 | 7 | 7 | 7 | 7 | 7 | 7 | 0 | |
| % AedeChtIPTC | 7 | 7 | 7 | 7 | 7 | 7 | 100% | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| UIr BrleCyT ) tyCCRPla | 7 | 7 | 7 | 7 | 7 | 7 | 0 | 7 | 7 | 7 | 7 | 7 | 7 | 0 | |
| % UIr BrleCyT ) tyCCRPla | 7 | 7 | 7 | 7 | 7 | 7 | 0% | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |

f AedeChtIPTCPTd UIr BrleCyT ) tyCCRPla9s Dseth, o Do Li gh, o o Do Li ghyTted, c Dc gtu, S DS 7c utT



**14. Washington and Liberty - TMC**
Wed Jul 18, 2018
PM Peak (4PM - 5PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549102, Location: 43.103848, -75.23081, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US



## 15. Washington and Oriskany - TMC

Wed Jul 18, 2018
Full Length (7AM-9AM, 4PM-6PM)
Pll Classes (Lights, Prticulated Trucks and Single-Unit Trucks, Buses, Aedestrians, Bicycles on Road, Bicycles on Crosswalk)
Pll Movements
ID: 576103, Location: 73.103786, -45.231354, Site Code: Utica, New York

Arovided by: Tri-State Traffic Data, Inc.
187 Baker Road,
Coatesville, AP, 16320, US

| Leg | Oriskany St. | | | | | | | Oriskany St. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Eastbound | | | | | | | Westbound | | | | | | |
| Time | L | T | R | U | RR | **App** | Aed* | L | T | R | U | RR | **App** | Aed* |
| 2018-04-18 4:00PM | 3 | 178 | 0 | 0 | 0 | **151** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| 4:15PM | 1 | 160 | 1 | 0 | 0 | **120** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| 4:30PM | 1 | 227 | 0 | 0 | 0 | **005** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| 4:75PM | 1 | 278 | 0 | 0 | 0 | **042** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| Hourly Total | 9 | 810 | 1 | 0 | 0 | **319** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| 8:00PM | 5 | 213 | 3 | 0 | 1 | **000** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| 8:15PM | 2 | 201 | 2 | 0 | 0 | **075** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| 8:30PM | 1 | 201 | 1 | 0 | 0 | **078** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| 8:75PM | 0 | 165 | 3 | 0 | 0 | **123** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| Hourly Total | 8 | 810 | 6 | 0 | 1 | **303** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| 7:00AM | 2 | 278 | 0 | 0 | 0 | **057** | 1 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| 7:15AM | 1 | 257 | 1 | 0 | 0 | **056** | 1 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| 7:30AM | 1 | 240 | 1 | 0 | 0 | **090** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| 7:75AM | 0 | 290 | 0 | 0 | 2 | **060** | 1 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| Hourly Total | 7 | 1032 | 2 | 0 | 2 | **1747** | 3 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| 5:00AM | 1 | 294 | 2 | 0 | 0 | **097** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| 5:15AM | 0 | 284 | 7 | 0 | 0 | **021** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| 5:30AM | 0 | 232 | 0 | 0 | 0 | **080** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| 5:75AM | 3 | 163 | 1 | 0 | 0 | **129** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| Hourly Total | 7 | 646 | 4 | 0 | 0 | **227** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| 9:00AM | 0 | 0 | 0 | 0 | 0 | **7** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | **7** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| **Total** | 22 | 3931 | 16 | 0 | 3 | **8695** | 3 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| **% Approach** | 0.9% | 68.8% | 0.5% | 0% | 0.1% | - | - | 0% | 0% | 0% | 0% | 0% | - | - |
| **% Total** | 0.9% | 65.5% | 0.5% | 0% | 0.1% | **26.9%** | - | 0% | 0% | 0% | 0% | 0% | **7%** | - |
| **Lights** | 16 | 3762 | 14 | 0 | 3 | **8581** | - | 0 | 0 | 0 | 0 | 0 | **7** | - |
| **% Lights** | 89.7% | 69.2% | 86.5% | 0% | 100% | **26.1%** | - | 0% | 0% | 0% | 0% | 0% | - | - |
| **Articulated Trucks and Single-Unit Trucks** | 2 | 120 | 1 | 0 | 0 | **108** | - | 0 | 0 | 0 | 0 | 0 | **7** | - |
| **% Articulated Trucks and Single-Unit Trucks** | 6.1% | 3.3% | 5.3% | 0% | 0% | **8.8%** | - | 0% | 0% | 0% | 0% | 0% | - | - |
| **Buses** | 0 | 18 | 1 | 0 | 0 | **12** | - | 0 | 0 | 0 | 0 | 0 | **7** | - |
| **% Buses** | 0% | 0.5% | 5.3% | 0% | 0% | **7.5%** | - | 0% | 0% | 0% | 0% | 0% | - | - |
| **Bicycles on Road** | 1 | 1 | 0 | 0 | 0 | **0** | - | 0 | 0 | 0 | 0 | 0 | **7** | - |
| **% Bicycles on Road** | 7.5% | 0% | 0% | 0% | 0% | **7.1%** | - | 0% | 0% | 0% | 0% | 0% | - | - |
| Aedestrians | - | - | - | - | - | - | 3 | - | - | - | - | - | - | 0 |
| % Aedestrians | - | - | - | - | - | - | 100% | - | - | - | - | - | - | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 0% | - | - | - | - | - | - | - |

*Aedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn



## 15. Washington and Oriskany - TMC

Wed Jul 18, 2018
Full Length (7AM-9AM, 4PM-6PM)
Pll Classes (Lights, Prticulated Trucks and Single-Unit Trucks, Buses, Aedestrians, Bicycles on Road, Bicycles on Crosswalk)
Pll Movements
ID: 576103, Location: 73.103786, -45.231354, Site Code: Utica, New York

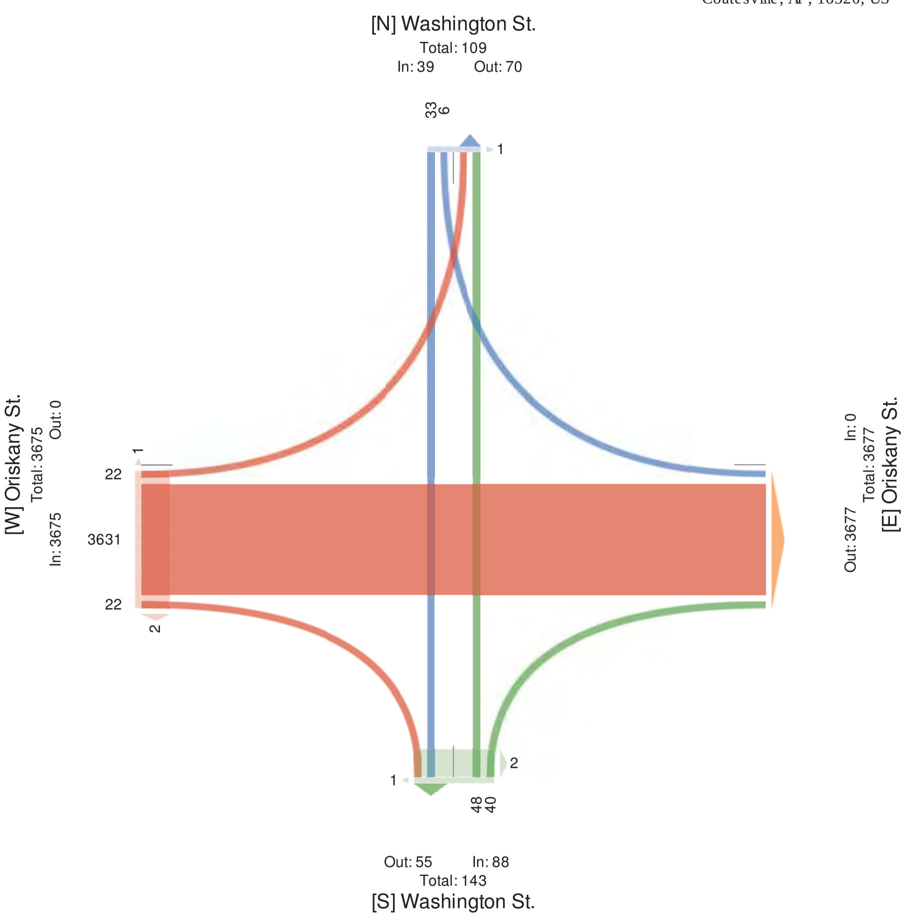
Arovided by: Tri-State Traffic Data, Inc.
187 Baker Road,
Coatesville, AP, 16320, US

| Leg | Washington St. | | | | | | | Washington St. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Northbound | | | | | | | Southbound | | | | | | | |
| Time | L | T | R | U | RR | **App** | Aed* | L | T | R | U | RR | **App** | Aed* | **Int** |
| 2018-04-18 4:00PM | 0 | 2 | 1 | 0 | 0 | **1** | 1 | 0 | 0 | 0 | 0 | 0 | **6** | 0 | **285** |
| 4:15PM | 0 | 7 | 3 | 0 | 0 | **4** | 1 | 0 | 2 | 0 | 0 | 0 | **3** | 0 | **362** |
| 4:30PM | 0 | 2 | 1 | 0 | 0 | **1** | 0 | 0 | 0 | 0 | 0 | 0 | **6** | 0 | **339** |
| 4:75PM | 0 | 7 | 2 | 0 | 1 | **4** | 0 | 0 | 0 | 0 | 0 | 0 | **6** | 0 | **387** |
| Hourly Total | 0 | 12 | 4 | 0 | 1 | **36** | 2 | 0 | 2 | 0 | 0 | 0 | **3** | 0 | **910** |
| 8:00PM | 0 | 7 | 0 | 0 | 1 | **8** | 0 | 0 | 2 | 0 | 0 | 0 | **3** | 0 | **330** |
| 8:15PM | 0 | 3 | 3 | 0 | 2 | **9** | 0 | 2 | 0 | 0 | 0 | 0 | **3** | 0 | **328** |
| 8:30PM | 0 | 2 | 0 | 0 | 0 | **3** | 0 | 0 | 1 | 0 | 0 | 0 | **2** | 0 | **367** |
| 8:75PM | 0 | 3 | 0 | 0 | 0 | **1** | 0 | 0 | 5 | 0 | 0 | 0 | **8** | 0 | **367** |
| Hourly Total | 0 | 12 | 3 | 0 | 3 | **29** | 0 | 2 | 8 | 0 | 0 | 0 | **26** | 0 | **987** |
| 7:00AM | 0 | 9 | 2 | 0 | 3 | **22** | 0 | 0 | 7 | 0 | 0 | 0 | **5** | 1 | **378** |
| 7:15AM | 0 | 3 | 0 | 0 | 3 | **7** | 0 | 0 | 5 | 0 | 0 | 0 | **8** | 0 | **374** |
| 7:30AM | 0 | 2 | 7 | 0 | 9 | **23** | 0 | 0 | 5 | 0 | 0 | 0 | **8** | 0 | **390** |
| 7:75AM | 0 | 0 | 2 | 0 | 3 | **8** | 0 | 3 | 1 | 0 | 0 | 0 | **5** | 0 | **342** |
| Hourly Total | 0 | 11 | 8 | 0 | 15 | **15** | 0 | 3 | 15 | 0 | 0 | 0 | **29** | 1 | **2603** |
| 5:00AM | 0 | 5 | 1 | 0 | 0 | **7** | 1 | 1 | 9 | 0 | 0 | 0 | **4** | 0 | **391** |
| 5:15AM | 0 | 5 | 0 | 0 | 1 | **7** | 0 | 0 | 2 | 0 | 0 | 0 | **3** | 0 | **300** |
| 5:30AM | 0 | 1 | 1 | 0 | 0 | **3** | 0 | 0 | 0 | 0 | 0 | 0 | **6** | 0 | **315** |
| 5:75AM | 0 | 2 | 0 | 0 | 0 | **3** | 0 | 0 | 0 | 0 | 0 | 0 | **6** | 0 | **200** |
| Hourly Total | 0 | 13 | 2 | 0 | 1 | **27** | 1 | 1 | 8 | 0 | 0 | 0 | **0** | 0 | **2628** |
| 9:00AM | 0 | 0 | 0 | 0 | 0 | **6** | 0 | 0 | 0 | 0 | 0 | 0 | **6** | 0 | **6** |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | **6** | 0 | 0 | 0 | 0 | 0 | 0 | **6** | 0 | **6** |
| **Total** | 0 | 78 | 20 | 0 | 20 | **99** | 3 | 9 | 33 | 0 | 0 | 0 | **10** | 1 | **1963** |
| **% Approach** | 0% | 57.5% | 22.4% | 0% | 22.4% | - | - | 15.7% | 87.9% | 0% | 0% | 0% | - | - | - |
| **% Total** | 0% | 1.3% | 0.5% | 0% | 0.5% | **3.1%** | - | 0.2% | 0.6% | 0% | 0% | 0% | **2.6%** | - | - |
| **Lights** | 0 | 79 | 18 | 0 | 20 | **95** | - | 9 | 31 | 0 | 0 | 0 | **14** | - | 3952 |
| **% Lights** | 0% | 65.8% | 60.0% | 0% | 100% | **08.8%** | - | 100% | 63.6% | 0% | 0% | 0% | **05.0%** | - | 69.1% |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 0 | 2 | 0 | 0 | **3** | - | 0 | 1 | 0 | 0 | 0 | **2** | - | 129 |
| **% Articulated Trucks and Single-Unit Trucks** | 0% | 0% | 10.0% | 0% | 0% | **3.1%** | - | 0% | 3.0% | 0% | 0% | 0% | **3.7%** | - | 3.3% |
| **Buses** | 0 | 2 | 0 | 0 | 0 | **3** | - | 0 | 0 | 0 | 0 | 0 | **6** | - | 21 |
| **% Buses** | 0% | 7.2% | 0% | 0% | 0% | **3.1%** | - | 0% | 0% | 0% | 0% | 0% | **6%** | - | 0.9% |
| **Bicycles on Road** | 0 | 0 | 0 | 0 | 0 | **6** | - | 0 | 1 | 0 | 0 | 0 | **2** | - | 3 |
| **% Bicycles on Road** | 0% | 0% | 0% | 0% | 0% | **6%** | - | 0% | 3.0% | 0% | 0% | 0% | **3.7%** | - | 0.1% |
| Aedestrians | - | - | - | - | - | - | 2 | - | - | - | - | - | - | 1 | |
| % Aedestrians | - | - | - | - | - | - | 99.4% | - | - | - | - | - | - | 100% | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 33.3% | - | - | - | - | - | - | 0% | - |

*Aedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

**15. Washington and Oriskany - TMC**
Wed Jul 18, 2018
Full Length (7AM-9AM, 4PM-6PM)
Pll Classes (Lights, Prticulated Trucks and Single-Unit Trucks, Buses, Aedestrians, Bicycles on Road, Bicycles on Crosswalk)
Pll Movements
ID: 576103, Location: 73.103786, -45.231354, Site Code: Utica, New York

Arovided by: Tri-State Traffic Data, Inc.
187 Baker Road,
Coatesville, AP, 16320, US






**15. Washington and Oriskany - TMC**
Wed Jul 18, 2018
AM Peak (7:30AM - 8:30AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549103, Location: 43.103489, -75.231357, Site Code: Utica, 6ew Nork

Provided Yy: Tri-State Trabic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | f riskany St. | | | | | | | f riskany St. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | OastYound | | | | | | | WestYound | | | | | | |
| Time | L | T | R | U | RR | App | PedE | L | T | R | U | RR | App | PedE |
| 2018-07-18 7:30AM | 1 | 224 | 0 | 0 | 0 | **225** | 0 | 0 | 0 | 0 | 0 | 0 | **0** | 0 |
| 7:45AM | 1 | 248 | 0 | 0 | 0 | **249** | 0 | 0 | 0 | 0 | 0 | 0 | **0** | 0 |
| 8:00AM | 5 | 213 | 3 | 0 | 1 | **222** | 0 | 0 | 0 | 0 | 0 | 0 | **0** | 0 |
| 8:15AM | 2 | 201 | 2 | 0 | 0 | **205** | 0 | 0 | 0 | 0 | 0 | 0 | **0** | 0 |
| **Total** | 9 | 88* | 5 | 0 | 1 | **901** | 0 | 0 | 0 | 0 | 0 | 0 | **0** | 0 |
| **% Approach** | 1.0% | 98.3% | 0.*% | 0% | 0.1% | - | - | 0% | 0% | 0% | 0% | 0% | - | - |
| **% Total** | 1.0% | 95.5% | 0.5% | 0% | 0.1% | **97.1%** | - | 0% | 0% | 0% | 0% | 0% | **0%** | - |
| **PHF** | 0.450 | 0.893 | 0.417 | - | 0.250 | **0.905** | - | - | - | - | - | - | - | - |
| **Lights** | 8 | 841 | 5 | 0 | 1 | **855** | - | 0 | 0 | 0 | 0 | 0 | **0** | - |
| **% Lights** | 88.9% | 94.9% | 100% | 0% | 100% | **94.9%** | - | 0% | 0% | 0% | 0% | 0% | - | - |
| **Articulated Trucks and Single-Unit Trucks** | 1 | 38 | 0 | 0 | 0 | **39** | - | 0 | 0 | 0 | 0 | 0 | **0** | - |
| **% Articulated Trucks and Single-Unit Trucks** | 11.1% | 4.3% | 0% | 0% | 0% | **4.3%** | - | 0% | 0% | 0% | 0% | 0% | - | - |
| **Buses** | 0 | 7 | 0 | 0 | 0 | **7** | - | 0 | 0 | 0 | 0 | 0 | **0** | - |
| **% Buses** | 0% | 0.8% | 0% | 0% | 0% | **0.8%** | - | 0% | 0% | 0% | 0% | 0% | - | - |
| **Bicycles on Road** | 0 | 0 | 0 | 0 | 0 | **0** | - | 0 | 0 | 0 | 0 | 0 | **0** | - |
| **% Bicycles on Road** | 0% | 0% | 0% | 0% | 0% | **0%** | - | 0% | 0% | 0% | 0% | 0% | - | - |
| Pedestrians | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

EPedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

**15. Washington and Oriskany - TMC**
Wed Jul 18, 2018
AM Peak (7:30AM - 8:30AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549103, Location: 43.103489, -75.231357, Site Code: Utica, 6 ew Nork

Provided Yy: Tri-State Trafic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

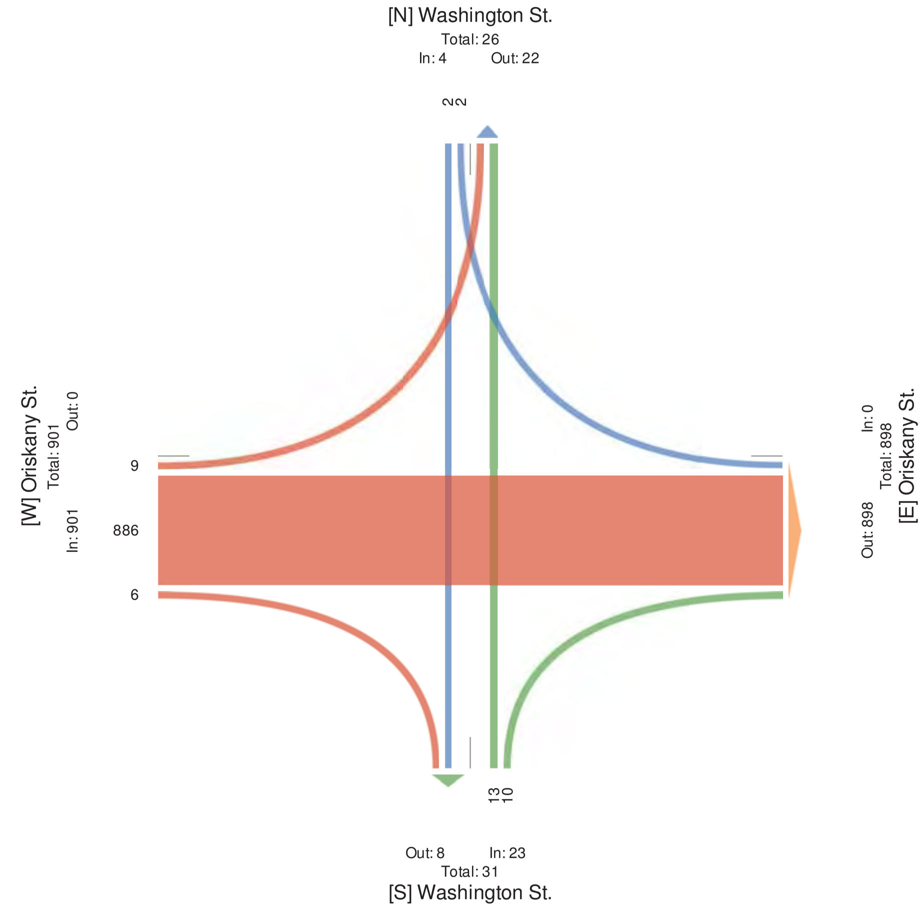
| Leg | Washington St. | | | | | | | Washington St. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | 6 orth Yound | | | | | | | South Yound | | | | | | | |
| Time | L | T | R | U | RR | App | Pedf | L | T | R | U | RR | App | Pedf | Int |
| 2018-07-18 7:30AM | 0 | 2 | 1 | 0 | 0 | **2** | 0 | 0 | 0 | 0 | 0 | 0 | **5** | 0 | **117** |
| 7:45AM | 0 | 4 | 2 | 0 | 1 | **4** | 0 | 0 | 0 | 0 | 0 | 0 | **5** | 0 | **180** |
| 8:00AM | 0 | 4 | 0 | 0 | 1 | **8** | 0 | 0 | 2 | 0 | 0 | 0 | **1** | 0 | **113** |
| 8:15AM | 0 | 3 | 3 | 0 | 2 | **7** | 0 | 2 | 0 | 0 | 0 | 0 | **1** | 0 | **168** |
| **9 Ttoa** | 0 | 13 | * | 0 | 4 | **12** | 0 | 2 | 2 | 0 | 0 | 0 | **l** | 0 | **317** |
| **% ApprToch** | 0% | 5*.5% | 2*.1% | 0% | 17.4% | **-** | - | 50.0% | 50.0% | 0% | 0% | 0% | **-** | - | - |
| **% 9 Ttoa** | 0% | 1.4% | 0.*% | 0% | 0.4% | **1.8%** | - | 0.2% | 0.2% | 0% | 0% | 0% | **5.l %** | - | - |
| **PHF** | - | 0.813 | 0.500 | - | 0.500 | **5.463** | - | 0.250 | 0.250 | - | - | - | **5.855** | - | 0.90* |
| **Lights** | 0 | 13 | 5 | 0 | 4 | **11** | - | 2 | 2 | 0 | 0 | 0 | **l** | - | 881 |
| **% Lights** | 0% | 100% | 83.3% | 0% | 100% | **38.4%** | - | 100% | 100% | 0% | 0% | 0% | **655%** | - | 94.9% |
| **Articuaoted 9 rucks ond Singæ-Unit 9 rucks** | 0 | 0 | 1 | 0 | 0 | **6** | - | 0 | 0 | 0 | 0 | 0 | **5** | - | 40 |
| **% Articuaoted 9 rucks ond Singæ-Unit 9 rucks** | 0% | 0% | 1*.7% | 0% | 0% | **l .2%** | - | 0% | 0% | 0% | 0% | 0% | **5%** | - | 4.3% |
| **Buses** | 0 | 0 | 0 | 0 | 0 | **5** | - | 0 | 0 | 0 | 0 | 0 | **5** | - | 7 |
| **% Buses** | 0% | 0% | 0% | 0% | 0% | **5%** | - | 0% | 0% | 0% | 0% | 0% | **5%** | - | 0.8% |
| **Bicycæs Tn RTod** | 0 | 0 | 0 | 0 | 0 | **5** | - | 0 | 0 | 0 | 0 | 0 | **5** | - | 0 |
| **% Bicycæs Tn RTod** | 0% | 0% | 0% | 0% | 0% | **5%** | - | 0% | 0% | 0% | 0% | 0% | **5%** | - | 0% |
| Pedestrians | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

f Pedestrians and Bicycles on Crosswalk. L: Lebt, R: Right, RR: Right on red, T: Thru, U: U-Turn



**15. Washington and Oriskany - TMC**
Wed Jul 18, 2018
PMaek( 4-5) 0PM A85) 0PMC
Plls lkLLeL 4ightrL, PcrgTulkred n cuT(LkSd UgShle ABSgn cuT(L, yuLeL, aedeLrcgkSL, ygToTleL RS wRkd, ygToTleL RS s cRLLvkl(C
Pll MRmeI eSrL
D 593. 10), i RTkrgRS53) 710) 38., A972) 1) 9-, Ugre s Rde 5BrgTk, Nev YRc(

acRmgled bo5n cgAUrkre n ckffgT
: krk, DST7
183 yk(ec wRkd,
s RkreLmgle, aP, 1.) 20, BU



## 15. Washington and Oriskany - TMC

Wed Jul 18, 2018
Forced Peak (7:45AM - 8:45AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549103, Location: 43.103489, -75.231357, Site Code: Utica, 6ew Nork

Provided Yy: Tri-State Trabic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | f riskany St. | | | | | | | f riskany St. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | OastYound | | | | | | | WestYound | | | | | | |
| Time | L | T | R | U | RR | App | PedE | L | T | R | U | RR | App | PedE |
| 2018-07-18 7:45AM | 1 | 248 | 0 | 0 | 0 | 250 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 |
| 8:00AM | 5 | 213 | 3 | 0 | 1 | 222 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 |
| 8:15AM | 2 | 201 | 2 | 0 | 0 | 249 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 |
| 8:30AM | 1 | 201 | 1 | 0 | 0 | 24T | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 |
| **o t a 1** | 9 | 8*3 | * | 0 | 1 | % 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 |
| **r cApph t l - 7** | 1.0% | 98.2% | 0.7% | 0% | 0.1% | . | - | 0% | 0% | 0% | 0% | 0% | . | - |
| **r co t a 1** | 1.0% | 95.3% | 0.7% | 0% | 0.1% | 0 P4r | - | 0% | 0% | 0% | 0% | 0% | 4r | - |
| **HFL** | 0.450 | 0.870 | 0.500 | - | 0.250 | 4P%T | - | - | - | - | - | - | . | - |
| **i gs 7a8** | 8 | 812 | * | 0 | 1 | %2 | - | 0 | 0 | 0 | 0 | 0 | 4 | - |
| **r ci gs 7a8** | 88.9% | 94.1% | 100% | 0% | 100% | 05 Rr | - | 0% | 0% | 0% | 0% | 0% | . | - |
| **Ahag- e 1l adkco he - n8d SkcUgSs 1d.3 Sgaco he - n8** | 1 | 42 | 0 | 0 | 0 | 5 T | - | 0 | 0 | 0 | 0 | 0 | 4 | - |
| **r cAhag- e 1l adkco he - n8d SkcUgSs 1d.3 Sgaco he - n8** | 11.1% | 4.9% | 0% | 0% | 0% | 5 P0r | - | 0% | 0% | 0% | 0% | 0% | . | - |
| **Be 8d8** | 0 | 9 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 4 | - |
| **r cBe 8d8** | 0% | 1.0% | 0% | 0% | 0% | uP4r | - | 0% | 0% | 0% | 0% | 0% | . | - |
| **Bg y- 1d8ct ScRt l k** | 0 | 0 | 0 | 0 | 0 | 4 | - | 0 | 0 | 0 | 0 | 0 | 4 | - |
| **r cBg y- 1d8ct ScRt l k** | 0% | 0% | 0% | 0% | 0% | 4r | - | 0% | 0% | 0% | 0% | 0% | . | - |
| Pedestrians | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

EPedestrians and Bicycles on Crosswalk. L: Lebt, R: Right, RR: Right on red, T: Thru, U: U-Turn



## 15. Washington and Oriskany - TMC

Wed Jul 18, 2018
Forced Peak (7:45AM - 8:45AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549103, Location: 43.103489, -75.231357, Site Code: Utica, 6ew Nork

Provided Yy: Tri-State Trabic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

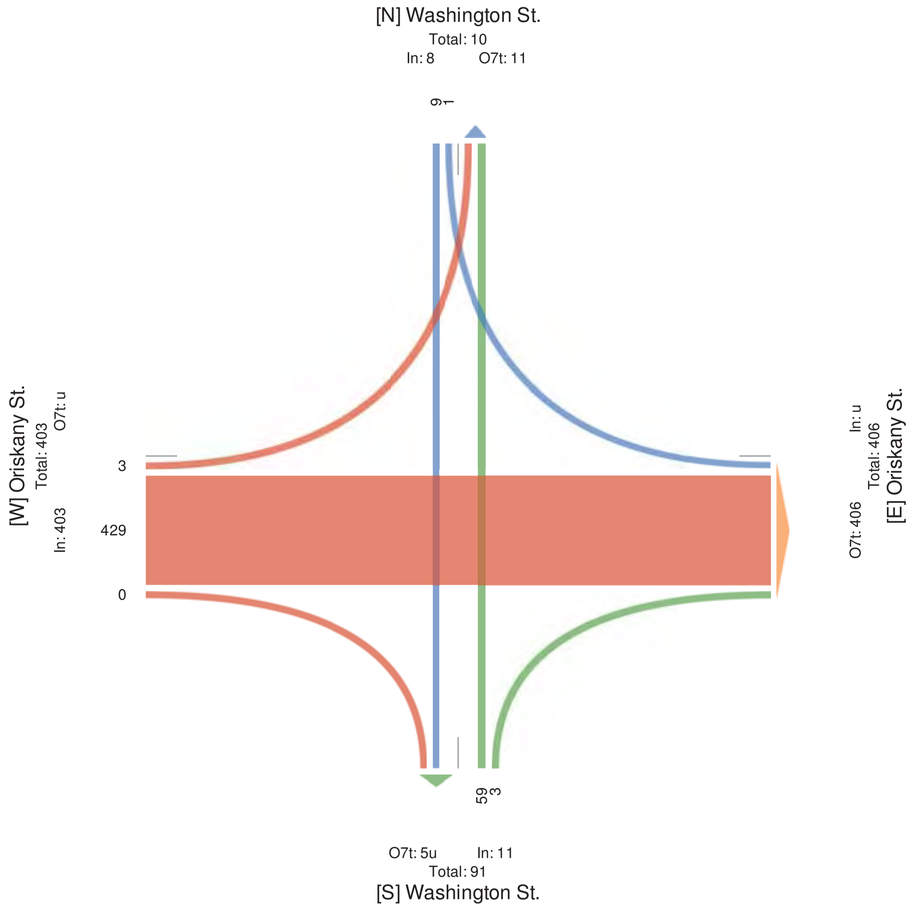
| Leg | Washington St. | | | | | | | Washington St. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | 6orthYound | | | | | | | SouthYound | | | | | | | |
| Time | L | T | R | U | RR | App | Pedf | L | T | R | U | RR | App | Pedf | Int |
| 2018-07-18 7:45AM | 0 | 4 | 2 | 0 | 1 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 256 |
| 8:00AM | 0 | 4 | 0 | 0 | 1 | 5 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 229 |
| 8:15AM | 0 | 3 | 3 | 0 | 2 | 8 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 215 |
| 8:30AM | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 206 |
| **Total** | 0 | 13 | 5 | 0 | 4 | 22 | 0 | 2 | 3 | 0 | 0 | 0 | 5 | 0 | 906 |
| **% Approach** | 0* | 59.1* | 22.7* | 0* | 18.2* | - | - | 40.0* | %0.0* | 0* | 0* | 0* | - | - | - |
| **% Total** | 0* | 1.4* | 0.%* | 0* | 0.4* | 2.4% | - | 0.2* | 0.3* | 0* | 0* | 0* | 0.6% | - | - |
| **PHF** | - | 0.813 | 0.417 | - | 0.500 | 0.688 | - | 0.250 | 0.375 | - | - | - | 0.625 | - | 0.885 |
| **Lights** | 0 | 13 | 4 | 0 | 4 | 21 | - | 2 | 2 | 0 | 0 | 0 | 4 | - | 852 |
| **% Lights** | 0* | 100* | 80.0* | 0* | 100* | 95.5% | - | 100* | %%7* | 0* | 0* | 0* | 80.0% | - | 94.0* |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 0 | 1 | 0 | 0 | 1 | - | 0 | 1 | 0 | 0 | 0 | 1 | - | 45 |
| **% Articulated Trucks and Single-Unit Trucks** | 0* | 0* | 20.0* | 0* | 0* | 4.5% | - | 0* | 33.3* | 0* | 0* | 0* | 20.0% | - | 5.0* |
| **Buses** | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | - | 9 |
| **% Buses** | 0* | 0* | 0* | 0* | 0* | 0% | - | 0* | 0* | 0* | 0* | 0* | 0% | - | 1.0* |
| **Bicycles on Road** | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 |
| **% Bicycles on Road** | 0* | 0* | 0* | 0* | 0* | 0% | - | 0* | 0* | 0* | 0* | 0* | 0% | - | 0* |
| Pedestrians | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | |
| * Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | |
| * Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

fPedestrians and Bicycles on Crosswalk. L: Lebt, R: Right, RR: Right on red, T: Thru, U: U-Turn

## 15. Washington and Oriskany - TMC

Wed Jul 18, 2018
Forced Peak (7:45AM - 8:45AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549103, Location: 43.103489, -75.231357, Site Code: Utica, New York


Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US




## 15. Washington and Oriskany - TMC

Wed Jul 18, 2018
PM Peak (4-50PM ) O-50PMv) r Heoall Peak ACuo
s ll Llaii ei (ght cTr, s oTnulaTed S ounki aUd BhUt le)y UhTS ounki , Rui ei , Pedei TohaUi , Rhnwnlei CUmCad, Rhnwnlei CULoCii I alkv
s ll MCHe D eUTr
:9 - O43105, gCnaTtCU-45.105483, )7O.2515O7, BhTe LCde-y Tna, 6 e I NCok


PoCHhded Yw-S oh)BTaTe S oabbn
9 aTa, : Un.
184 Rakeo mCad,
L CaTei Hlle, Ps , 13520, y B


| get<br>9 hoenTtCU | r ohi kaUwBT.<br>f ai TYCuUd | | | | | | | r ohi kaUwBT.<br>Wei TYCuUd | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ShDe | g | S | m | y | mm | **App** | PedE | g | S | m | y | mm | **App** | PedE |
| 2018)07)18 4-50PM | 1 | 270 | 1 | 0 | 0 | **020** | 0 | 0 | 0 | 0 | 0 | 0 | **4** | 0 |
| 4-4OPM | 0 | 2*0 | 0 | 0 | 2 | **050** | 1 | 0 | 0 | 0 | 0 | 0 | **4** | 0 |
| O-00PM | 1 | 2*7 | 2 | 0 | 0 | **024** | 0 | 0 | 0 | 0 | 0 | 0 | **4** | 0 |
| O-1OPM | 0 | 287 | 4 | 0 | 0 | **087** | 0 | 0 | 0 | 0 | 0 | 0 | **4** | 0 |
| **1 Tota** | 2 | 1084 | 7 | 0 | 2 | **748l** | 1 | 0 | 0 | 0 | 0 | 0 | **4** | 0 |
| **9 %App Tt rc** | 0.2% | 33.0% | 0.*% | 0% | 0.2% | **h** | ) | 0% | 0% | 0% | 0% | 0% | **h** | ) |
| **9 %Tota** | 0.2% | 34.3% | 0.*% | 0% | 0.2% | **8l -89** | ) | 0% | 0% | 0% | 0% | 0% | **49** | ) |
| **6. P** | 0.O00 | 0.344 | 0.458 | ) | 0.2O0 | **4-8H7** | ) | ) | ) | ) | ) | ) | **h** | ) |
| **Fli cog** | 2 | 10*8 | * | 0 | 2 | **742s** | ) | 0 | 0 | 0 | 0 | 0 | **4** | ) |
| **9 %Fli cog** | 100% | 38.O% | 8O.7% | 0% | 100% | **8s -H9** | ) | 0% | 0% | 0% | 0% | 0% | **h** | ) |
| **A drua ted% urkg%nd%Lni aehUnIo% urkg** | 0 | 1O | 0 | 0 | 0 | **7l** | ) | 0 | 0 | 0 | 0 | 0 | **4** | ) |
| **9 %A drua ted% urkg%nd%Lni aehUnIo% urkg** | 0% | 1.4% | 0% | 0% | 0% | **7-H9** | ) | 0% | 0% | 0% | 0% | 0% | **h** | ) |
| **Bugeg** | 0 | 1 | 1 | 0 | 0 | **0** | ) | 0 | 0 | 0 | 0 | 0 | **4** | ) |
| **9 %Bugeg** | 0% | 0.1% | 14.5% | 0% | 0% | **4-09** | ) | 0% | 0% | 0% | 0% | 0% | **h** | ) |
| **BIryraeg%n%RTtd** | 0 | 0 | 0 | 0 | 0 | **4** | ) | 0 | 0 | 0 | 0 | 0 | **4** | ) |
| **9 %BIryraeg%n%RTtd** | 0% | 0% | 0% | 0% | 0% | **49** | ) | 0% | 0% | 0% | 0% | 0% | **h** | ) |
| Pedei TohaUi | ) | ) | ) | ) | ) | ) | 1 | ) | ) | ) | ) | ) | ) | 0 |
| % Pedei TohaUi | ) | ) | ) | ) | ) | ) | 100% | ) | ) | ) | ) | ) | ) | ) |
| Rhnwnlei CULoCii I alk | ) | ) | ) | ) | ) | ) | 0 | ) | ) | ) | ) | ) | ) | 0 |
| % Rhnwnlei CULoCii I alk | ) | ) | ) | ) | ) | ) | 0% | ) | ) | ) | ) | ) | ) | ) |

[E] Pedei TohaUi aUd Rhnwnlei CULoCii I alk. g- gebT, m- mht cT, mm- mht cTCUoed, S - S cou, y - y )SuoU

**15. Washington and Oriskany - TMC**
Wed Jul 18, 2018
PM Peak (4:30PM - 5:30PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549103, Location: 43.103489, -65.231356, Site Code: Utica, 7 ew Nork

Provided Yy: Tri-State Trabic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

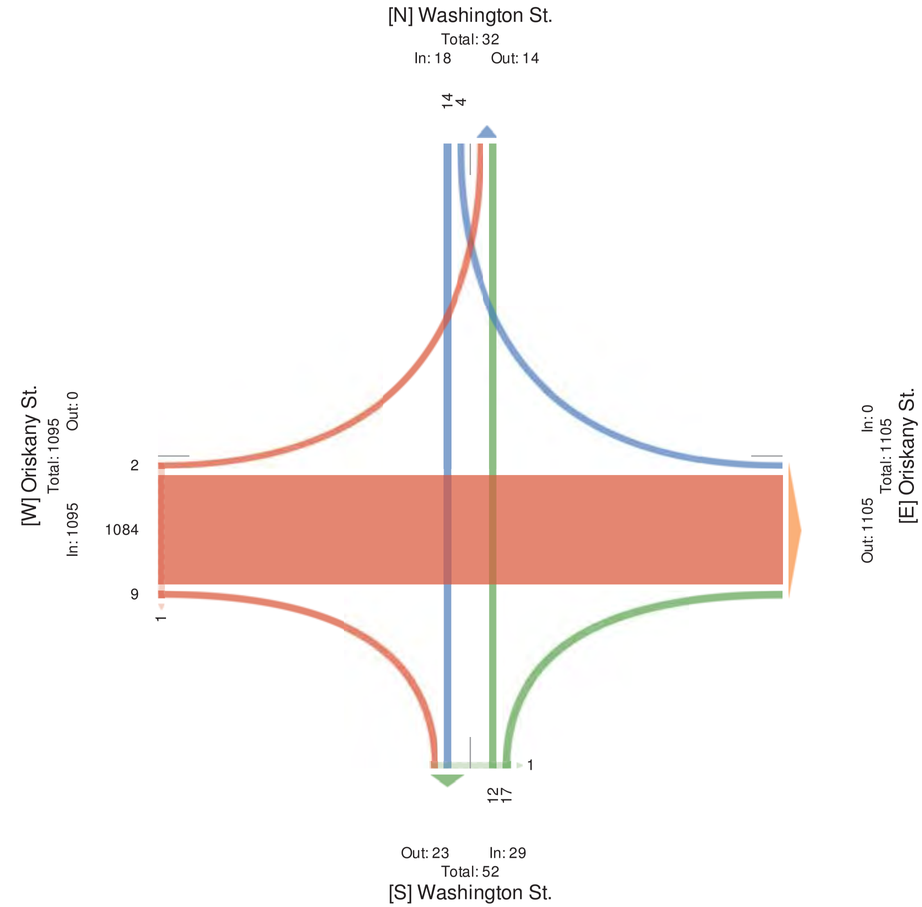
| Leg<br>Direction | Washington St.<br>7 orth Yound | | | | | | | Washington St.<br>South Yound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | L | T | R | U | RR | App | Pedf | L | T | R | U | RR | App | Pedf | Int |
| 2018-06-18 4:30PM | 0 | 2 | 4 | 0 | * | 25 | 0 | 0 | 5 | 0 | 0 | 0 | 1 | 0 | 574 |
| 4:45PM | 0 | 0 | 2 | 0 | 3 | 1 | 0 | 3 | 1 | 0 | 0 | 0 | 8 | 0 | 502 |
| 5:00PM | 0 | 5 | 1 | 0 | 0 | 3 | 1 | 1 | * | 0 | 0 | 0 | 0 | 0 | 576 |
| 5:15PM | 0 | 5 | 0 | 0 | 1 | 3 | 0 | 0 | 2 | 0 | 0 | 0 | 5 | 0 | 544 |
| 9 Ttoa | 0 | 12 | 6 | 0 | 10 | 54 | 1 | 4 | 14 | 0 | 0 | 0 | 27 | 0 | 2285 |
| l %App Torc | 0% | 41.4% | 24.1% | 0% | 34.5% | h | - | 22.2% | 66.8% | 0% | 0% | 0% | h | - | - |
| l % Ttoa | 0% | 1.1% | 0.*% | 0% | 0.9% | 5-1l | - | 0.4% | 1.2% | 0% | 0% | 0% | 2-3l | - | - |
| . PH | - | 0.*00 | 0.438 | - | 0.416 | F-3F8 | - | 0.333 | 0.583 | - | - | - | F-386 | - | 0.955 |
| Ligcts | 0 | 11 | * | 0 | 10 | 50 | - | 4 | 13 | 0 | 0 | 0 | 20 | - | 1122 |
| l %Ligcts | 0% | 91.6% | 85.6% | 0% | 100% | 46-2l | - | 100% | 92.9% | 0% | 0% | 0% | 48-8l | - | 98.2% |
| A tiruated% urks%nd%ingal Unit% urks | 0 | 0 | 1 | 0 | 0 | 2 | - | 0 | 0 | 0 | 0 | 0 | F | - | 1* |
| l %A tiruated% urks%nd%ingal Unit% urks | 0% | 0% | 14.3% | 0% | 0% | 6-8l | - | 0% | 0% | 0% | 0% | 0% | Fl | - | 1.4% |
| Buses | 0 | 1 | 0 | 0 | 0 | 2 | - | 0 | 0 | 0 | 0 | 0 | F | - | 3 |
| l %Buses | 0% | 8.3% | 0% | 0% | 0% | 6-8l | - | 0% | 0% | 0% | 0% | 0% | Fl | - | 0.3% |
| Biryraes %n %Tod | 0 | 0 | 0 | 0 | 0 | F | - | 0 | 1 | 0 | 0 | 0 | 2 | - | 1 |
| l %Biryraes %n %Tod | 0% | 0% | 0% | 0% | 0% | Fl | - | 0% | 6.1% | 0% | 0% | 0% | 1-3l | - | 0.1% |
| Pedestrians | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 0 | |
| % Pedestrians | - | - | - | - | - | - | 100% | - | - | - | - | - | - | - | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 0% | - | - | - | - | - | - | - | - |

f Pedestrians and Bicycles on Crosswalk. L: Lelt, R: Right, RR: Right on red, T: Thru, U: U-Turn



**15. Washington and Oriskany - TMC**
Wed Jul 18, 2018
AM AePa k( 7 0AM 3- 7 0AM) 3OverPll AePa Hour
Cll s lPLLeL ki ght cL, CrqTulPced n ruTaL PSd UgShle 3BSgcn ruTaL, yuLeL, AedeLcrgPSL, ygTRTleL oS woPd, ygTRTleL oS s roLLmPla)
Cll MoveI eScL
D5 7- ( 410: , i oTPcgoS7( : 910: ( 84, 3 - 92: 1: - . , Ugce s ode 7BcgTP, Nem Yora

Arovgled bR7n rg3UcPce n rPffgT 5 PcP, DST9
18( y Paer woPd,
s oPceLvglle, AC, 14: 20, BU



**15. Washington and Oriskany - TMC**
Wed Jul 18, 2018
Full Length (7AM-9AM, 4PM-6PM)
Pll Classes (Lights, Prticulated Trucks and Single-Unit Trucks, Buses, Aedestrians, Bicycles on Road, Bicycles on Crosswalk)
Pll Movements
ID: 576103, Location: 73.103786, -45.231354, Site Code: Utica, New York

Arovided by: Tri-State Traffic Data, Inc.
187 Baker Road,
Coatesville, AP, 16320, US

| Leg | Oriskany St. | | | | | | | Oriskany St. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Eastbound | | | | | | | Westbound | | | | | | |
| Time | L | T | R | U | RR | App | Aed* | L | T | R | U | RR | App | Aed* |
| 2018-04-18 4:00PM | 3 | 178 | 0 | 0 | 0 | **151** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| 4:15PM | 1 | 160 | 1 | 0 | 0 | **120** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| 4:30PM | 1 | 227 | 0 | 0 | 0 | **005** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| 4:75PM | 1 | 278 | 0 | 0 | 0 | **042** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| Hourly Total | 9 | 810 | 1 | 0 | 0 | **319** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| 8:00PM | 5 | 213 | 3 | 0 | 1 | **000** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| 8:15PM | 2 | 201 | 2 | 0 | 0 | **075** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| 8:30PM | 1 | 201 | 1 | 0 | 0 | **078** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| 8:75PM | 0 | 165 | 3 | 0 | 0 | **123** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| Hourly Total | 8 | 810 | 6 | 0 | 1 | **303** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| 7:00AM | 2 | 278 | 0 | 0 | 0 | **057** | 1 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| 7:15AM | 1 | 257 | 1 | 0 | 0 | **056** | 1 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| 7:30AM | 1 | 240 | 1 | 0 | 0 | **090** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| 7:75AM | 0 | 290 | 0 | 0 | 2 | **060** | 1 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| Hourly Total | 7 | 1032 | 2 | 0 | 2 | **1747** | 3 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| 5:00AM | 1 | 294 | 2 | 0 | 0 | **097** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| 5:15AM | 0 | 284 | 7 | 0 | 0 | **021** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| 5:30AM | 0 | 232 | 0 | 0 | 0 | **080** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| 5:75AM | 3 | 163 | 1 | 0 | 0 | **129** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| Hourly Total | 7 | 646 | 4 | 0 | 0 | **227** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| 9:00AM | 0 | 0 | 0 | 0 | 0 | **7** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | **7** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| **Total** | 22 | 3931 | 16 | 0 | 3 | **8695** | 3 | 0 | 0 | 0 | 0 | 0 | **7** | 0 |
| **% Approach** | 0.9% | 68.8% | 0.5% | 0% | 0.1% | - | - | 0% | 0% | 0% | 0% | 0% | - | - |
| **% Total** | 0.9% | 65.5% | 0.5% | 0% | 0.1% | **26.9%** | - | 0% | 0% | 0% | 0% | 0% | **7%** | - |
| **Lights** | 16 | 3762 | 14 | 0 | 3 | **8581** | - | 0 | 0 | 0 | 0 | 0 | **7** | - |
| **% Lights** | 89.7% | 69.2% | 86.5% | 0% | 100% | **26.1%** | - | 0% | 0% | 0% | 0% | 0% | - | - |
| **Articulated Trucks and Single-Unit Trucks** | 2 | 120 | 1 | 0 | 0 | **108** | - | 0 | 0 | 0 | 0 | 0 | **7** | - |
| **% Articulated Trucks and Single-Unit Trucks** | 6.1% | 3.3% | 5.3% | 0% | 0% | **8.8%** | - | 0% | 0% | 0% | 0% | 0% | - | - |
| **Buses** | 0 | 18 | 1 | 0 | 0 | **12** | - | 0 | 0 | 0 | 0 | 0 | **7** | - |
| **% Buses** | 0% | 0.5% | 5.3% | 0% | 0% | **7.5%** | - | 0% | 0% | 0% | 0% | 0% | - | - |
| **Bicycles on Road** | 1 | 1 | 0 | 0 | 0 | **0** | - | 0 | 0 | 0 | 0 | 0 | **7** | - |
| **% Bicycles on Road** | 7.5% | 0% | 0% | 0% | 0% | **7.1%** | - | 0% | 0% | 0% | 0% | 0% | - | - |
| Aedestrians | - | - | - | - | - | - | 3 | - | - | - | - | - | - | 0 |
| % Aedestrians | - | - | - | - | - | - | 100% | - | - | - | - | - | - | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 0% | - | - | - | - | - | - | - |

* Aedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn



**15. Washington and Oriskany - TMC**
Wed Jul 18, 2018
Full Length (7AM-9AM, 4PM-6PM)
Pll Classes (Lights, Prticulated Trucks and Single-Unit Trucks, Buses, Aedestrians, Bicycles on Road, Bicycles on Crosswalk)
Pll Movements
ID: 576103, Location: 73.103786, -45.231354, Site Code: Utica, New York

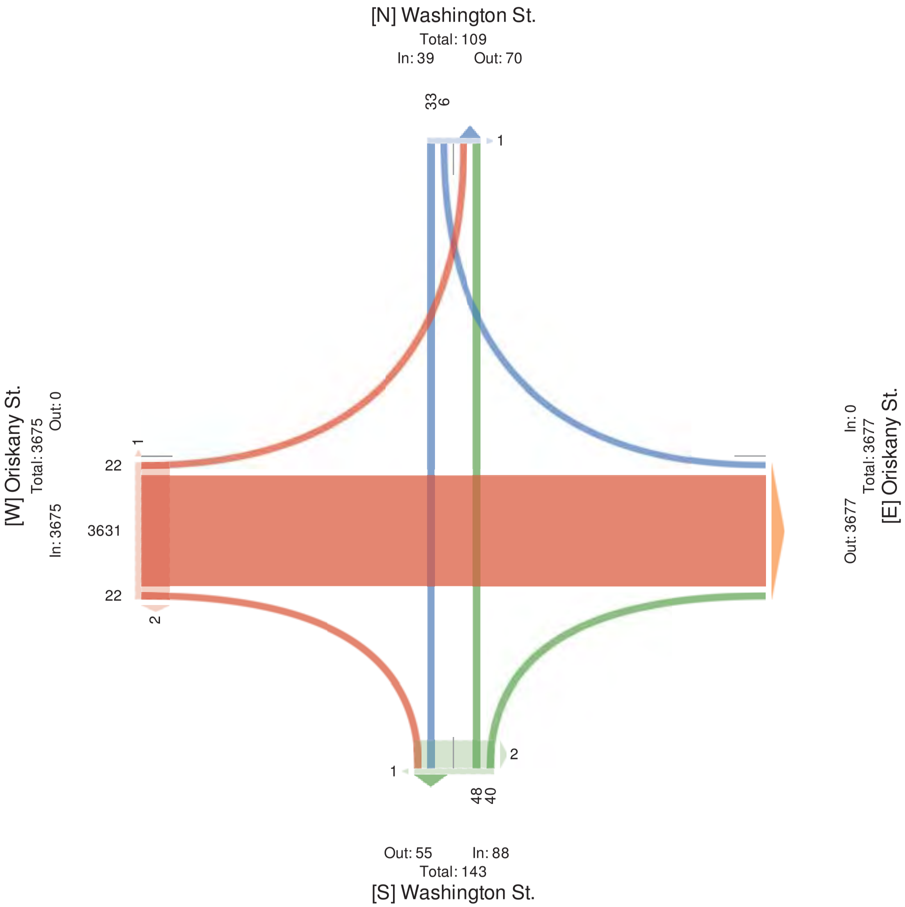
Arovided by: Tri-State Traffic Data, Inc.
187 Baker Road,
Coatesville, AP, 16320, US

| Leg | Washington St. | | | | | | | Washington St. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Northbound | | | | | | | Southbound | | | | | | | |
| Time | L | T | R | U | RR | App | Aed* | L | T | R | U | RR | App | Aed* | Int |
| 2018-04-18 4:00PM | 0 | 2 | 1 | 0 | 0 | **1** | 1 | 0 | 0 | 0 | 0 | 0 | **6** | 0 | **285** |
| 4:15PM | 0 | 7 | 3 | 0 | 0 | **4** | 1 | 0 | 2 | 0 | 0 | 0 | **3** | 0 | **362** |
| 4:30PM | 0 | 2 | 1 | 0 | 0 | **1** | 0 | 0 | 0 | 0 | 0 | 0 | **6** | 0 | **339** |
| 4:75PM | 0 | 7 | 2 | 0 | 1 | **4** | 0 | 0 | 0 | 0 | 0 | 0 | **6** | 0 | **387** |
| Hourly Total | 0 | 12 | 4 | 0 | 1 | **36** | 2 | 0 | 2 | 0 | 0 | 0 | **3** | 0 | **910** |
| 8:00PM | 0 | 7 | 0 | 0 | 1 | **8** | 0 | 0 | 2 | 0 | 0 | 0 | **3** | 0 | **330** |
| 8:15PM | 0 | 3 | 3 | 0 | 2 | **9** | 0 | 2 | 0 | 0 | 0 | 0 | **3** | 0 | **328** |
| 8:30PM | 0 | 2 | 0 | 0 | 0 | **3** | 0 | 0 | 1 | 0 | 0 | 0 | **2** | 0 | **367** |
| 8:75PM | 0 | 3 | 0 | 0 | 0 | **1** | 0 | 0 | 5 | 0 | 0 | 0 | **8** | 0 | **367** |
| Hourly Total | 0 | 12 | 3 | 0 | 3 | **29** | 0 | 2 | 8 | 0 | 0 | 0 | **26** | 0 | **987** |
| 7:00AM | 0 | 9 | 2 | 0 | 3 | **22** | 0 | 0 | 7 | 0 | 0 | 0 | **5** | 1 | **378** |
| 7:15AM | 0 | 3 | 0 | 0 | 3 | **7** | 0 | 0 | 5 | 0 | 0 | 0 | **8** | 0 | **374** |
| 7:30AM | 0 | 2 | 7 | 0 | 9 | **23** | 0 | 0 | 5 | 0 | 0 | 0 | **8** | 0 | **390** |
| 7:75AM | 0 | 0 | 2 | 0 | 3 | **8** | 0 | 3 | 1 | 0 | 0 | 0 | **5** | 0 | **342** |
| Hourly Total | 0 | 11 | 8 | 0 | 15 | **15** | 0 | 3 | 15 | 0 | 0 | 0 | **29** | 1 | **2603** |
| 5:00AM | 0 | 5 | 1 | 0 | 0 | **7** | 1 | 1 | 9 | 0 | 0 | 0 | **4** | 0 | **391** |
| 5:15AM | 0 | 5 | 0 | 0 | 1 | **7** | 0 | 0 | 2 | 0 | 0 | 0 | **3** | 0 | **300** |
| 5:30AM | 0 | 1 | 1 | 0 | 0 | **3** | 0 | 0 | 0 | 0 | 0 | 0 | **6** | 0 | **315** |
| 5:75AM | 0 | 2 | 0 | 0 | 0 | **3** | 0 | 0 | 0 | 0 | 0 | 0 | **6** | 0 | **200** |
| Hourly Total | 0 | 13 | 2 | 0 | 1 | **27** | 1 | 1 | 8 | 0 | 0 | 0 | **0** | 0 | **2628** |
| 9:00AM | 0 | 0 | 0 | 0 | 0 | **6** | 0 | 0 | 0 | 0 | 0 | 0 | **6** | 0 | **6** |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | **6** | 0 | 0 | 0 | 0 | 0 | 0 | **6** | 0 | **6** |
| **Total** | 0 | 78 | 20 | 0 | 20 | **99** | 3 | 9 | 33 | 0 | 0 | 0 | **10** | 1 | **1963** |
| **% Approach** | 0% | 57.5% | 22.4% | 0% | 22.4% | - | - | 15.7% | 87.9% | 0% | 0% | 0% | - | - | - |
| **% Total** | 0% | 1.3% | 0.5% | 0% | 0.5% | **3.1%** | - | 0.2% | 0.6% | 0% | 0% | 0% | **2.6%** | - | - |
| **Lights** | 0 | 79 | 18 | 0 | 20 | **95** | - | 9 | 31 | 0 | 0 | 0 | **14** | - | 3952 |
| **% Lights** | 0% | 65.8% | 60.0% | 0% | 100% | **08.8%** | - | 100% | 63.6% | 0% | 0% | 0% | **05.0%** | - | 69.1% |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 0 | 2 | 0 | 0 | **3** | - | 0 | 1 | 0 | 0 | 0 | **2** | - | 129 |
| **% Articulated Trucks and Single-Unit Trucks** | 0% | 0% | 10.0% | 0% | 0% | **3.1%** | - | 0% | 3.0% | 0% | 0% | 0% | **3.7%** | - | 3.3% |
| **Buses** | 0 | 2 | 0 | 0 | 0 | **3** | - | 0 | 0 | 0 | 0 | 0 | **6** | - | 21 |
| **% Buses** | 0% | 7.2% | 0% | 0% | 0% | **3.1%** | - | 0% | 0% | 0% | 0% | 0% | **6%** | - | 0.9% |
| **Bicycles on Road** | 0 | 0 | 0 | 0 | 0 | **6** | - | 0 | 1 | 0 | 0 | 0 | **2** | - | 3 |
| **% Bicycles on Road** | 0% | 0% | 0% | 0% | 0% | **6%** | - | 0% | 3.0% | 0% | 0% | 0% | **3.7%** | - | 0.1% |
| Aedestrians | - | - | - | - | - | - | 2 | - | - | - | - | - | - | 1 | |
| % Aedestrians | - | - | - | - | - | - | 99.4% | - | - | - | - | - | - | 100% | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 33.3% | - | - | - | - | - | - | 0% | - |

* Aedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

**15. Washington and Oriskany - TMC**
Wed Jul 18, 2018
Full Length (7AM-9AM, 4PM-6PM)
Pll Classes (Lights, Prticulated Trucks and Single-Unit Trucks, Buses, Aedestrians, Bicycles on Road, Bicycles on Crosswalk)
Pll Movements
ID: 576103, Location: 73.103786, -45.231354, Site Code: Utica, New York

Arovided by: Tri-State Traffic Data, Inc.
187 Baker Road,
Coatesville, AP, 16320, US






**15. Washington and Oriskany - TMC**
Wed Jul 18, 2018
AM Peak (7:30AM - 8:30AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549103, Location: 43.103489, -75.231357, Site Code: Utica, 6ew Nork

Provided Yy: Tri-State Trabic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | f riskany St. | | | | | | | f riskany St. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | OastYound | | | | | | | WestYound | | | | | | |
| Time | L | T | R | U | RR | App | PedE | L | T | R | U | RR | App | PedE |
| 2018-07-18 7:30AM | 1 | 224 | 0 | 0 | 0 | **225** | 0 | 0 | 0 | 0 | 0 | 0 | **0** | 0 |
| 7:45AM | 1 | 248 | 0 | 0 | 0 | **249** | 0 | 0 | 0 | 0 | 0 | 0 | **0** | 0 |
| 8:00AM | 5 | 213 | 3 | 0 | 1 | **222** | 0 | 0 | 0 | 0 | 0 | 0 | **0** | 0 |
| 8:15AM | 2 | 201 | 2 | 0 | 0 | **205** | 0 | 0 | 0 | 0 | 0 | 0 | **0** | 0 |
| **Total** | 9 | 88* | 5 | 0 | 1 | **901** | 0 | 0 | 0 | 0 | 0 | 0 | **0** | 0 |
| **% Approach** | 1.0% | 98.3% | 0.*% | 0% | 0.1% | - | - | 0% | 0% | 0% | 0% | 0% | - | - |
| **% Total** | 1.0% | 95.5% | 0.5% | 0% | 0.1% | **97.1%** | - | 0% | 0% | 0% | 0% | 0% | **0%** | - |
| **PHF** | 0.450 | 0.893 | 0.417 | - | 0.250 | **0.905** | - | - | - | - | - | - | - | - |
| **Lights** | 8 | 841 | 5 | 0 | 1 | **855** | - | 0 | 0 | 0 | 0 | 0 | **0** | - |
| **% Lights** | 88.9% | 94.9% | 100% | 0% | 100% | **94.9%** | - | 0% | 0% | 0% | 0% | 0% | - | - |
| **Articulated Trucks and Single-Unit Trucks** | 1 | 38 | 0 | 0 | 0 | **39** | - | 0 | 0 | 0 | 0 | 0 | **0** | - |
| **% Articulated Trucks and Single-Unit Trucks** | 11.1% | 4.3% | 0% | 0% | 0% | **4.3%** | - | 0% | 0% | 0% | 0% | 0% | - | - |
| **Buses** | 0 | 7 | 0 | 0 | 0 | **7** | - | 0 | 0 | 0 | 0 | 0 | **0** | - |
| **% Buses** | 0% | 0.8% | 0% | 0% | 0% | **0.8%** | - | 0% | 0% | 0% | 0% | 0% | - | - |
| **Bicycles on Road** | 0 | 0 | 0 | 0 | 0 | **0** | - | 0 | 0 | 0 | 0 | 0 | **0** | - |
| **% Bicycles on Road** | 0% | 0% | 0% | 0% | 0% | **0%** | - | 0% | 0% | 0% | 0% | 0% | - | - |
| Pedestrians | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

EPedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

**15. Washington and Oriskany - TMC**
Wed Jul 18, 2018
AM Peak (7:30AM - 8:30AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549103, Location: 43.103489, -75.231357, Site Code: Utica, 6ew Nork

Provided Yy: Tri-State Trabic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

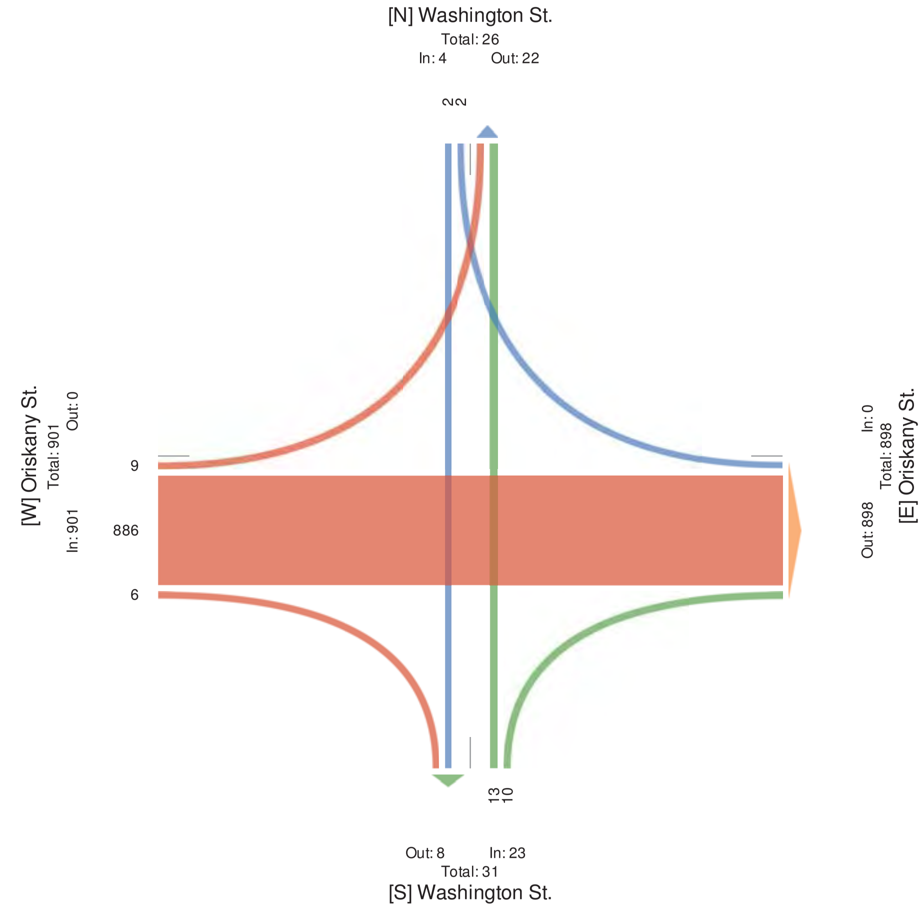
| Leg | Washington St. | | | | | | | Washington St. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | 6orthYound | | | | | | | SouthYound | | | | | | | |
| Time | L | T | R | U | RR | App | Pedf | L | T | R | U | RR | App | Pedf | Int |
| 2018-07-18 7:30AM | 0 | 2 | 1 | 0 | 0 | **2** | 0 | 0 | 0 | 0 | 0 | 0 | **5** | 0 | **117** |
| 7:45AM | 0 | 4 | 2 | 0 | 1 | **4** | 0 | 0 | 0 | 0 | 0 | 0 | **5** | 0 | **180** |
| 8:00AM | 0 | 4 | 0 | 0 | 1 | **8** | 0 | 0 | 2 | 0 | 0 | 0 | **1** | 0 | **113** |
| 8:15AM | 0 | 3 | 3 | 0 | 2 | **7** | 0 | 2 | 0 | 0 | 0 | 0 | **1** | 0 | **168** |
| **9 Ttoa** | 0 | 13 | * | 0 | 4 | **12** | 0 | 2 | 2 | 0 | 0 | 0 | **l** | 0 | **317** |
| **% ApprToch** | 0% | 5*.5% | 2*.1% | 0% | 17.4% | - | - | 50.0% | 50.0% | 0% | 0% | 0% | - | - | - |
| **% 9 Ttoa** | 0% | 1.4% | 0.*% | 0% | 0.4% | **1.8%** | - | 0.2% | 0.2% | 0% | 0% | 0% | **5.l %** | - | - |
| **PHF** | - | 0.813 | 0.500 | - | 0.500 | **5.463** | - | 0.250 | 0.250 | - | - | - | **5.855** | - | 0.90* |
| **Lights** | 0 | 13 | 5 | 0 | 4 | **11** | - | 2 | 2 | 0 | 0 | 0 | **l** | - | 881 |
| **% Lights** | 0% | 100% | 83.3% | 0% | 100% | **38.4%** | - | 100% | 100% | 0% | 0% | 0% | **655%** | - | 94.9% |
| **Articuaoted 9 rucks ond Singæ-Unit 9 rucks** | 0 | 0 | 1 | 0 | 0 | **6** | - | 0 | 0 | 0 | 0 | 0 | **5** | - | 40 |
| **% Articuaoted 9 rucks ond Singæ-Unit 9 rucks** | 0% | 0% | 1*.7% | 0% | 0% | **l .2%** | - | 0% | 0% | 0% | 0% | 0% | **5%** | - | 4.3% |
| **Buses** | 0 | 0 | 0 | 0 | 0 | **5** | - | 0 | 0 | 0 | 0 | 0 | **5** | - | 7 |
| **% Buses** | 0% | 0% | 0% | 0% | 0% | **5%** | - | 0% | 0% | 0% | 0% | 0% | **5%** | - | 0.8% |
| **Bicycæs Tn RTod** | 0 | 0 | 0 | 0 | 0 | **5** | - | 0 | 0 | 0 | 0 | 0 | **5** | - | 0 |
| **% Bicycæs Tn RTod** | 0% | 0% | 0% | 0% | 0% | **5%** | - | 0% | 0% | 0% | 0% | 0% | **5%** | - | 0% |
| Pedestrians | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

f Pedestrians and Bicycles on Crosswalk. L: Lebt, R: Right, RR: Right on red, T: Thru, U: U-Turn



**15. Washington and Oriskany - TMC**
Wed Jul 18, 2018
PMaek( 4-5) 0PM A85) 0PMC
Plls lkLLeL4i ght rL, PcrgTulkred n cuT(LkSd UgShle ABSgr n cuT(L, yuLeL, aedeLrcgkSL, ygToTleL RS wRkd, ygToTleL RS s cRLLv kl(C
Pll MRme I eSrL
D 593. 10), i RTkrgRS53) 710) 38., A972) 1) 9-, Ugre s Rde 5BrgTk, Nev YRc(

acRmgled bo5n cgAUrkre n ckffgT : krk, DST7
183 yk(ec wRkd,
s RkreLmgle, aP, 1. ) 20, BU



## 15. Washington and Oriskany - TMC

Wed Jul 18, 2018
Forced Peak (7P:   45P:  A
Mll - la))e) (CsLi g), Mrgsculaged hruck) at d Tst Lle4nt sgh ruck), Su)e), Pede)grsat ), SscUcle)
ot Boad, SscUcle) ot - ro))y alkA
Mll : oRewet g)
vmI 57D109, Cocagsot I7931 0978D, 4. 5329195. , Tsge - ode In gsca, 6ey Nork

ProRsded YUI h rs4Tgage h rabbsc
maga, vt c3
187 Saker Boad,
- oage) Rslle, PM, 1D920, n T

| CeL<br>msrecgsot | f rs)kat UTg3<br>Oa)gYout d | | | | | | | f rs)kat UTg3<br>We)gYout d | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| h sw e | C | h | B | n | BB | App | PedE | C | h | B | n | BB | App | PedE |
| 20184 0. 418 7I00P: | 2 | 278 | 0 | 0 | 0 | **250** | 1 | 0 | 0 | 0 | 0 | 0 | **0** | 0 |
| 7I15P: | 1 | 257 | 1 | 0 | 0 | **256** | 1 | 0 | 0 | 0 | 0 | 0 | **0** | 0 |
| 7I90P: | 1 | 2. 0 | 1 | 0 | 0 | **272** | 0 | 0 | 0 | 0 | 0 | 0 | **0** | 0 |
| 7I75P: | 0 | 2*0 | 0 | 0 | 2 | **262** | 1 | 0 | 0 | 0 | 0 | 0 | **0** | 0 |
| **Total** | 7 | 1092 | 2 | 0 | 2 | **1040** | 9 | 0 | 0 | 0 | 0 | 0 | **0** | 0 |
| **% Approach** | 037% | DD32% | 032% | 0% | 032% | - | 4 | 0% | 0% | 0% | 0% | 0% | - | 4 |
| **% Total** | 037% | D735% | 032% | 0% | 032% | **95.2%** | 4 | 0% | 0% | 0% | 0% | 0% | **0%** | 4 |
| **PHF** | 03500 | 03D5* | 03500 | 4 | 03250 | **0.956** | 4 | 4 | 4 | 4 | 4 | 4 | - | 4 |
| **Lights** | 9 | 1008 | 2 | 0 | 2 | **1015** | 4 | 0 | 0 | 0 | 0 | 0 | **0** | 4 |
| **% Lights** | . 530% | D. 3 % | 100% | 0% | 100% | **97.6%** | 4 | 0% | 0% | 0% | 0% | 0% | - | 4 |
| **Articulated Trucks and Single-Unit Trucks** | 1 | 1D | 0 | 0 | 0 | **20** | 4 | 0 | 0 | 0 | 0 | 0 | **0** | 4 |
| **% Articulated Trucks and Single-Unit Trucks** | 2530% | 138% | 0% | 0% | 0% | **1.9%** | 4 | 0% | 0% | 0% | 0% | 0% | - | 4 |
| **Buses** | 0 | 5 | 0 | 0 | 0 | **5** | 4 | 0 | 0 | 0 | 0 | 0 | **0** | 4 |
| **% Buses** | 0% | 035% | 0% | 0% | 0% | **0.5%** | 4 | 0% | 0% | 0% | 0% | 0% | - | 4 |
| **Bicycles on Road** | 0 | 0 | 0 | 0 | 0 | **0** | 4 | 0 | 0 | 0 | 0 | 0 | **0** | 4 |
| **% Bicycles on Road** | 0% | 0% | 0% | 0% | 0% | **0%** | 4 | 0% | 0% | 0% | 0% | 0% | - | 4 |
| Pede)grsat ) | 4 | 4 | 4 | 4 | 4 | 4 | 9 | 4 | 4 | 4 | 4 | 4 | 4 | 0 |
| % Pede)grsat ) | 4 | 4 | 4 | 4 | 4 | 4 | 100% | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| SscUcle) ot - ro))y alk | 4 | 4 | 4 | 4 | 4 | 4 | 0 | 4 | 4 | 4 | 4 | 4 | 4 | 0 |
| % SscUcle) ot - ro))y alk | 4 | 4 | 4 | 4 | 4 | 4 | 0% | 4 | 4 | 4 | 4 | 4 | 4 | 4 |

[E] Pede)grsat ) at d SscUcle) ot - ro))y alk3CI Cebg BI BsLi g BBI BsLi got red, h I h i ru, n I n 4h urt



## 15. Washington and Oriskany - TMC

Wed Jul 18, 2018
Forced Peak (7P:   45P:  A
Mll - la))e) (CsLi g), Mrgsculaged hruck) at d Tst Lle4nt sgh ruck), Su)e), Pede)grsat ), SscUcle)
ot Boad, SscUcle) ot - ro))y alkA
Mll : oRewet g)
vmI 57D109, Cocagsot I7931 0978D, 4. 5329195. , Tsge - ode In gsca, 6ey Nork

ProRsded YUI h rs4Tgage h rabbsc
maga, vt c3
187 Saker Boad,
- oage) Rslle, PM, 1D920, n T

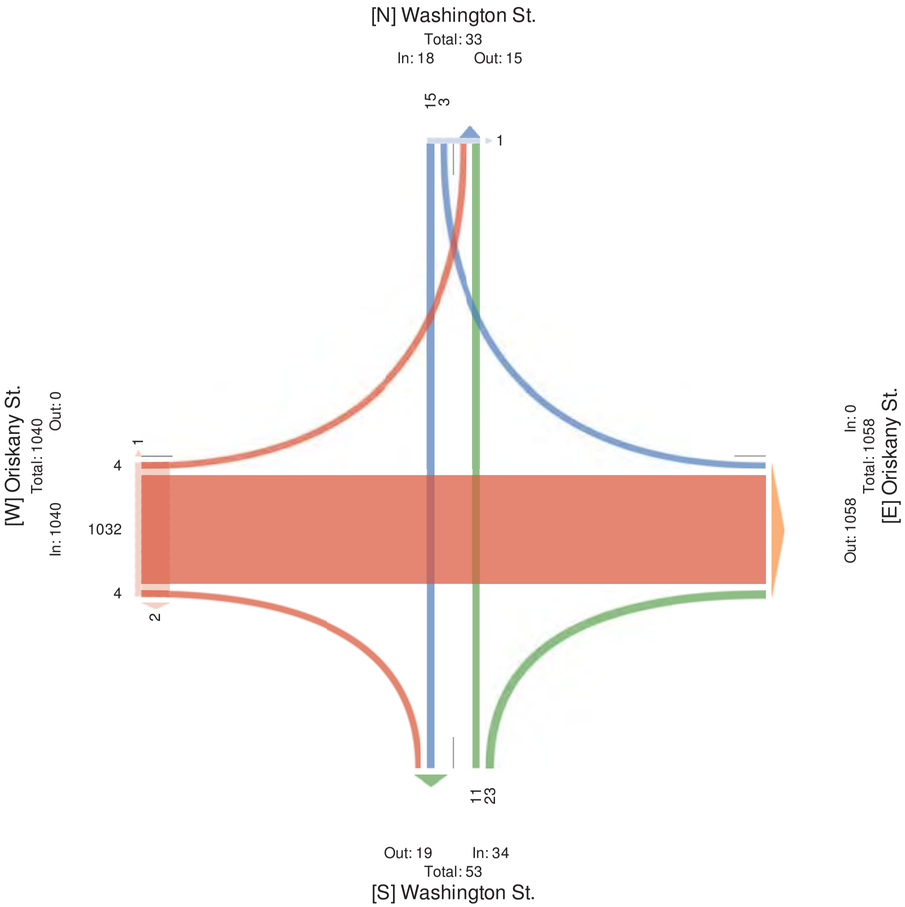
| CeL<br>msrecgsot | Wa)i st Lgot Tg3<br>6orgi Yout d | | | | | | | Wa)i st Lgot Tg3<br>Tougi Yout d | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| h sw e | C | h | B | n | BB | App | Pedf | C | h | B | n | BB | App | Pedf | Int |
| 20184 0. 418 7I00P: | 0 | * | 2 | 0 | 9 | **22** | 0 | 0 | 7 | 0 | 0 | 0 | **5** | 1 | **174** |
| 7I15P: | 0 | 9 | 0 | 0 | 9 | **7** | 0 | 0 | 5 | 0 | 0 | 0 | **4** | 0 | **178** |
| 7I90P: | 0 | 2 | 7 | 0 | * | **21** | 0 | 0 | 5 | 0 | 0 | 0 | **4** | 0 | **103** |
| 7I75P: | 0 | 0 | 2 | 0 | 9 | **4** | 0 | 9 | 1 | 0 | 0 | 0 | **5** | 0 | **182** |
| **6 9tTc** | 0 | 11 | 8 | 0 | 15 | **a5** | 0 | 9 | 15 | 0 | 0 | 0 | **20** | 1 | **2l 31** |
| **% Appr9Tch** | 0% | 9237% | 2935% | 0% | 7731% | - | 4 | 1*3 % | 8939% | 0% | 0% | 0% | - | 4 | 4 |
| **% 6 9tTo** | 0% | 130% | 03 % | 0% | 137% | **a.2%** | 4 | 039% | 137% | 0% | 0% | 0% | **2.7%** | 4 | 4 |
| **PHF** | 4 | 03758 | 03500 | 4 | 03*25 | **l .8l 0** | 4 | 03250 | 03. 50 | 4 | 4 | 4 | **l .3l l** | 4 | 03D75 |
| **Lights** | 0 | 11 | . | 0 | 15 | **aa** | 4 | 9 | 15 | 0 | 0 | 0 | **20** | 4 | 10** |
| **% Lights** | 0% | 100% | 8. 35% | 0% | 100% | **38.2%** | 4 | 100% | 100% | 0% | 0% | 0% | **2l l %** | 4 | D. 3*% |
| **ArticuoTted 6 rucks Tnd Singoe-Unit 6 rucks** | 0 | 0 | 1 | 0 | 0 | **2** | 4 | 0 | 0 | 0 | 0 | 0 | **l** | 4 | 21 |
| **% ArticuoTted 6 rucks Tnd Singoe-Unit 6 rucks** | 0% | 0% | 1235% | 0% | 0% | **1.3%** | 4 | 0% | 0% | 0% | 0% | 0% | **l %** | 4 | 13D% |
| **Buses** | 0 | 0 | 0 | 0 | 0 | **l** | 4 | 0 | 0 | 0 | 0 | 0 | **l** | 4 | 5 |
| **% Buses** | 0% | 0% | 0% | 0% | 0% | **l %** | 4 | 0% | 0% | 0% | 0% | 0% | **l %** | 4 | 035% |
| **Bicycoes 9n R9Td** | 0 | 0 | 0 | 0 | 0 | **l** | 4 | 0 | 0 | 0 | 0 | 0 | **l** | 4 | 0 |
| **% Bicycoes 9n R9Td** | 0% | 0% | 0% | 0% | 0% | **l %** | 4 | 0% | 0% | 0% | 0% | 0% | **l %** | 4 | 0% |
| Pede)grsat ) | 4 | 4 | 4 | 4 | 4 | 4 | 0 | 4 | 4 | 4 | 4 | 4 | 4 | 1 | |
| % Pede)grsat ) | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 100% | 4 |
| SscUcle) ot - ro))y alk | 4 | 4 | 4 | 4 | 4 | 4 | 0 | 4 | 4 | 4 | 4 | 4 | 4 | 0 | |
| % SscUcle) ot - ro))y alk | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 0% | 4 |

[f] Pede)grsat ) at d SscUcle) ot - ro))y alk3CI Cebg BI BsLi g BBI BsLi got red, h I h i ru, n I n 4h urt

## 15. Washington and Oriskany - TMC

Wed Jul 18, 2018
Forced Peak (7P:   45P:  A
Mll - la))e) (CsLi g), Mrgsculaged h ruck) at d Tst Lle4n t sgh ruck), Su)e), Pede)grsat ), SscUcle) ot  Boad, SscUcle) ot  - ro))y alkA
Mll :  oRewet g)
vmI 57D109, Cocagsot I7931 0978D, 4 5329195. , Tsge - ode In gsca, Ney York

ProRsded bUI h rs4Tgage h raffsc
maga, vt c3
187 Saker Boad,
- oage)Rslle, PM, 1D920, n T






## 15. Washington and Oriskany - TMC

Wed Jul 18, 2018
PM Peak (4-50PM ) O-50PMv) r  Heoall Peak ACuo
s ll L laii e i (ght c Ti , s oThnulaTed S ounki  aUd BltUt le)y UhTS ounki , Rui e i , Pedei TohaUi , Rlnwnlei CUmCad, Rlnwnlei  CUL oCii I alkv
s ll MCHe D e UTi
:9 - O43105, gCnaTiCU- 45.105483, )7O.2515O7, BhTe L Cde - y Thna, 6 e I  NCok

PoCHded Yw- S oh)BTaTe S oabbn
9 aTa, : Un.
184 Rakeo mCad,
L CaTei Hlle, Ps , 13520, y B

| get<br>9 hoe nTiCU | r ohi kaUwBT.<br>f ai TYCuUd | | | | | | | r ohi kaUwBT.<br>Wei TYCuUd | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ShDe | g | S | m | y | mm | **App** | PedE | g | S | m | y | mm | **App** | PedE |
| 2018)07)18 4-50PM | 1 | 270 | 1 | 0 | 0 | **020** | 0 | 0 | 0 | 0 | 0 | 0 | **4** | 0 |
| 4-4OPM | 0 | 2*0 | 0 | 0 | 2 | **050** | 1 | 0 | 0 | 0 | 0 | 0 | **4** | 0 |
| O-00PM | 1 | 2*7 | 2 | 0 | 0 | **024** | 0 | 0 | 0 | 0 | 0 | 0 | **4** | 0 |
| O-1OPM | 0 | 287 | 4 | 0 | 0 | **087** | 0 | 0 | 0 | 0 | 0 | 0 | **4** | 0 |
| **1 Tot a** | 2 | 1084 | 7 | 0 | 2 | **748l** | 1 | 0 | 0 | 0 | 0 | 0 | **4** | 0 |
| **9 %App Tt r c** | 0.2% | 33.0% | 0.*% | 0% | 0.2% | **h** | ) | 0% | 0% | 0% | 0% | 0% | **h** | ) |
| **9 % Tot a** | 0.2% | 34.3% | 0.*% | 0% | 0.2% | **8l -89** | ) | 0% | 0% | 0% | 0% | 0% | **49** | ) |
| **6. P** | 0.O00 | 0.344 | 0.458 | ) | 0.2O0 | **4-8H7** | ) | ) | ) | ) | ) | ) | **h** | ) |
| **FLi cog** | 2 | 10*8 | * | 0 | 2 | **742s** | ) | 0 | 0 | 0 | 0 | 0 | **4** | ) |
| **9 %Li cog** | 100% | 38.O% | 8O.7% | 0% | 100% | **8s -H9** | ) | 0% | 0% | 0% | 0% | 0% | **h** | ) |
| **A druat oe d% urkg%nd%Ini aeHUnIo% urkg** | 0 | 1O | 0 | 0 | 0 | **7l** | ) | 0 | 0 | 0 | 0 | 0 | **4** | ) |
| **9 %A druat oe d% urkg%nd%Ini aeHUnIo% urkg** | 0% | 1.4% | 0% | 0% | 0% | **7-H9** | ) | 0% | 0% | 0% | 0% | 0% | **h** | ) |
| **Buge g** | 0 | 1 | 1 | 0 | 0 | **0** | ) | 0 | 0 | 0 | 0 | 0 | **4** | ) |
| **9 %Buge g** | 0% | 0.1% | 14.5% | 0% | 0% | **4-09** | ) | 0% | 0% | 0% | 0% | 0% | **h** | ) |
| **BIr yr aeg%n%RTt d** | 0 | 0 | 0 | 0 | 0 | **4** | ) | 0 | 0 | 0 | 0 | 0 | **4** | ) |
| **9 %BIr yr aeg%n%RTt d** | 0% | 0% | 0% | 0% | 0% | **49** | ) | 0% | 0% | 0% | 0% | 0% | **h** | ) |
| Pedei TohaUi | ) | ) | ) | ) | ) | ) | 1 | ) | ) | ) | ) | ) | ) | 0 |
| % Pedei TohaUi | ) | ) | ) | ) | ) | ) | 100% | ) | ) | ) | ) | ) | ) | ) |
| Rlnwnlei CU L oCi i I alk | ) | ) | ) | ) | ) | ) | 0 | ) | ) | ) | ) | ) | ) | 0 |
| % Rlnwnlei CU L oCi i I alk | ) | ) | ) | ) | ) | ) | 0% | ) | ) | ) | ) | ) | ) | ) |

[E] Pedei TohaUi  aUd Rlnwnlei  CUL oCii I alk. g- gebT, m- mlt  cT, mm- mlt  cTCUoe d, S - S cou, y - y )S uoU



Revised A - 86

**15. Washington and Oriskany - TMC**
Wed Jul 18, 2018
PM Peak (4:30PM - 5:30PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549103, Location: 43.103489, -65.231356, Site Code: Utica, 7 ew Nork

Provided Yy: Tri-State Trabic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

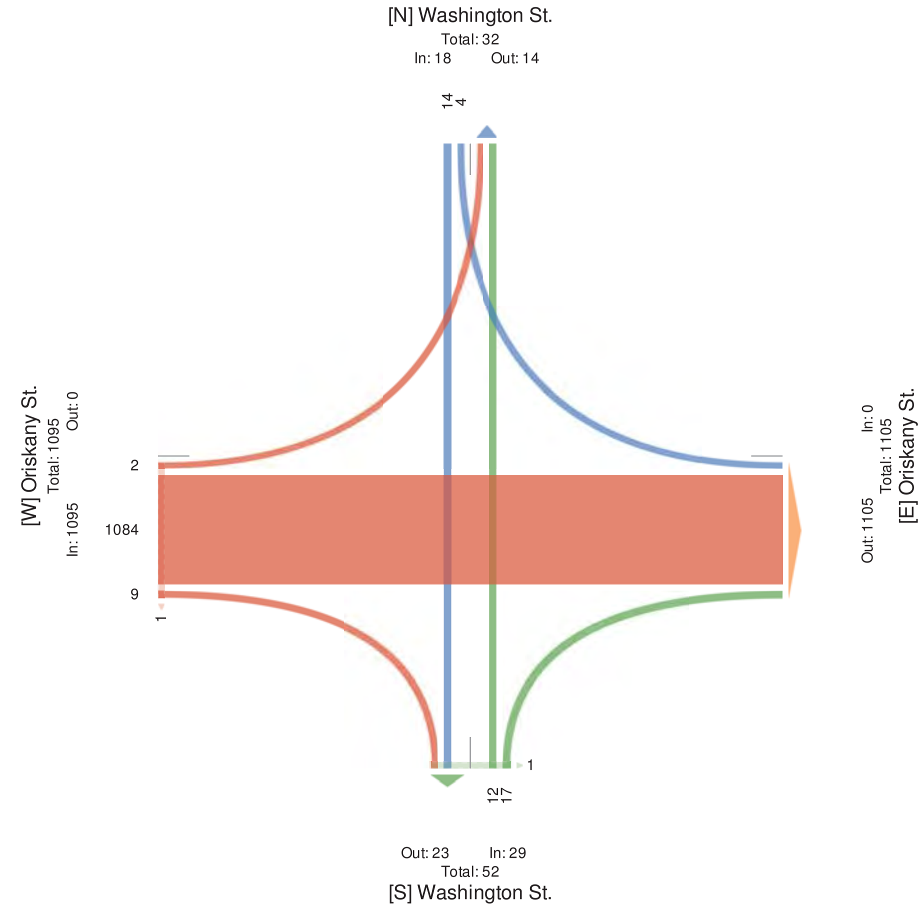
| Leg / Direction / Time | Washington St. 7 orth Yound | | | | | | | Washington St. South Yound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | U | RR | App | Pedf | L | T | R | U | RR | App | Pedf | Int |
| 2018-06-18 4:30PM | 0 | 2 | 4 | 0 | * | **25** | 0 | 0 | 5 | 0 | 0 | 0 | **1** | 0 | **574** |
| 4:45PM | 0 | 0 | 2 | 0 | 3 | **1** | 0 | 3 | 1 | 0 | 0 | 0 | **8** | 0 | **502** |
| 5:00PM | 0 | 5 | 1 | 0 | 0 | **3** | 1 | 1 | * | 0 | 0 | 0 | **0** | 0 | **576** |
| 5:15PM | 0 | 5 | 0 | 0 | 1 | **3** | 0 | 0 | 2 | 0 | 0 | 0 | **5** | 0 | **544** |
| **9 Ttoa** | 0 | 12 | 6 | 0 | 10 | **54** | 1 | 4 | 14 | 0 | 0 | 0 | **27** | 0 | **2285** |
| **l %App Torc** | 0% | 41.4% | 24.1% | 0% | 34.5% | **h** | - | 22.2% | 66.8% | 0% | 0% | 0% | **h** | - | - |
| **l %Ttoa** | 0% | 1.1% | 0.*% | 0% | 0.9% | **5-1l** | - | 0.4% | 1.2% | 0% | 0% | 0% | **2-3l** | - | - |
| **. PH** | - | 0.*00 | 0.438 | - | 0.416 | **F-3F8** | - | 0.333 | 0.583 | - | - | - | **F-386** | - | 0.955 |
| **Ligcts** | 0 | 11 | * | 0 | 10 | **50** | - | 4 | 13 | 0 | 0 | 0 | **20** | - | 1122 |
| **l %Ligcts** | 0% | 91.6% | 85.6% | 0% | 100% | **46-2l** | - | 100% | 92.9% | 0% | 0% | 0% | **48-8l** | - | 98.2% |
| **A tiruaoted% urks%nd%ingaeUnit% urks** | 0 | 0 | 1 | 0 | 0 | **2** | - | 0 | 0 | 0 | 0 | 0 | **F** | - | 1* |
| **l %A tiruaoted% urks%nd%ingaeUnit% urks** | 0% | 0% | 14.3% | 0% | 0% | **6-8l** | - | 0% | 0% | 0% | 0% | 0% | **Fl** | - | 1.4% |
| **Buses** | 0 | 1 | 0 | 0 | 0 | **2** | - | 0 | 0 | 0 | 0 | 0 | **F** | - | 3 |
| **l %Buses** | 0% | 8.3% | 0% | 0% | 0% | **6-8l** | - | 0% | 0% | 0% | 0% | 0% | **Fl** | - | 0.3% |
| **Biryraes %n %Tod** | 0 | 0 | 0 | 0 | 0 | **F** | - | 0 | 1 | 0 | 0 | 0 | **2** | - | 1 |
| **l %Biryraes %n %Tod** | 0% | 0% | 0% | 0% | 0% | **Fl** | - | 0% | 6.1% | 0% | 0% | 0% | **1-3l** | - | 0.1% |
| Pedestrians | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 0 | |
| % Pedestrians | - | - | - | - | - | - | 100% | - | - | - | - | - | - | - | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 0% | - | - | - | - | - | - | - | - |

f Pedestrians and Bicycles on Crosswalk. L: Lebt, R: Right, RR: Right on red, T: Thru, U: U-Turn



**15. Washington and Oriskany - TMC**
Wed Jul 18, 2018
AM AePa k( 7: 0AM 3- 7: 0AM) 3OverPll AePa Hour
Cll s lPLLeL ki ght cL, CrcgTulPce d n ruTaL PSd UgShle3BSgcn ruTaL, yuLeL, AedeLcrgPSL, ygTRTleL oS woPd, ygTRTleL oS s roLLmPla)
Cll MoveI eScL
D5 7-( 410: , i oTPcgoS7( : 910: ( 84, 3 - 92: 1: - . , Ugce s ode7BcgTP, Nem Yora

Arovgled bR7n rg3UcPce n rPffgT 5 PcP, DST9
18( yPaer woPd,
s oPceLvglle, AC, 14: 20, BU






Revised A - 87

Utica, NY
Washington/Lafayette
Wednesday, July 18, 2018
Location: 43.102719, -
75.232027

TRI-STATE TRAFFIC DATA
www.TSTData.com
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-466-1469 jvetterlein@tstdata.com
Serving Transportation Professionals Since 1995

Count Name: 16. Washington and Lafayette
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 1

## Turning Movement Data

| Start Time | Washington St. Southbound Right | Right on Red | Left | U-Turn | Peds | App. Total | Lafayette St. Westbound Right | Right on Red | Thru | U-Turn | Peds | App. Total | Lafayette St. Eastbound Thru | Left | U-Turn | Peds | App. Total | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7:00 AM | 1 | 0 | 3 | 0 | 0 | 4 | 2 | 0 | 42 | 0 | 0 | 44 | 29 | 2 | 0 | 0 | 31 | 79 |
| 7:15 AM | 0 | 3 | 1 | 0 | 1 | 4 | 3 | 0 | 42 | 0 | 0 | 45 | 30 | 0 | 0 | 1 | 30 | 79 |
| 7:30 AM | 0 | 1 | 2 | 0 | 1 | 3 | 1 | 0 | 37 | 0 | 1 | 38 | 35 | 0 | 0 | 0 | 35 | 76 |
| 7:45 AM | 3 | 1 | 3 | 0 | 1 | 7 | 1 | 0 | 51 | 0 | 1 | 52 | 24 | 2 | 0 | 0 | 26 | 85 |
| Hourly Total | 4 | 5 | 9 | 0 | 3 | 18 | 7 | 0 | 172 | 0 | 2 | 179 | 118 | 4 | 0 | 1 | 122 | 319 |
| 8:00 AM | 1 | 3 | 3 | 0 | 1 | 7 | 2 | 1 | 32 | 0 | 0 | 35 | 29 | 3 | 0 | 0 | 32 | 74 |
| 8:15 AM | 0 | 3 | 5 | 0 | 1 | 8 | 4 | 0 | 39 | 0 | 0 | 43 | 35 | 1 | 0 | 0 | 36 | 87 |
| 8:30 AM | 1 | 2 | 2 | 0 | 5 | 5 | 2 | 0 | 42 | 0 | 0 | 44 | 26 | 2 | 0 | 0 | 28 | 77 |
| 8:45 AM | 4 | 3 | 1 | 0 | 1 | 8 | 0 | 0 | 32 | 0 | 0 | 32 | 23 | 0 | 0 | 0 | 23 | 63 |
| Hourly Total | 6 | 11 | 11 | 0 | 8 | 28 | 8 | 1 | 145 | 0 | 0 | 154 | 113 | 6 | 0 | 0 | 119 | 301 |
| 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:00 PM | 2 | 1 | 2 | 0 | 0 | 5 | 10 | 0 | 38 | 0 | 0 | 48 | 35 | 1 | 0 | 0 | 36 | 89 |
| 4:15 PM | 1 | 3 | 5 | 0 | 0 | 9 | 4 | 0 | 45 | 0 | 0 | 49 | 16 | 3 | 0 | 0 | 19 | 77 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 33 | 0 | 0 | 35 | 26 | 1 | 0 | 0 | 27 | 62 |
| 4:45 PM | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 0 | 28 | 0 | 0 | 30 | 17 | 1 | 0 | 0 | 18 | 50 |
| Hourly Total | 3 | 4 | 9 | 0 | 0 | 16 | 18 | 0 | 144 | 0 | 0 | 162 | 94 | 6 | 0 | 0 | 100 | 278 |
| 5:00 PM | 0 | 1 | 3 | 0 | 1 | 4 | 2 | 0 | 33 | 0 | 0 | 35 | 16 | 1 | 0 | 0 | 17 | 56 |
| 5:15 PM | 0 | 2 | 4 | 0 | 0 | 6 | 4 | 0 | 34 | 0 | 0 | 38 | 17 | 2 | 0 | 0 | 19 | 63 |
| 5:30 PM | 0 | 1 | 1 | 0 | 0 | 2 | 6 | 0 | 23 | 0 | 2 | 29 | 15 | 0 | 0 | 0 | 15 | 46 |
| 5:45 PM | 0 | 0 | 2 | 0 | 0 | 2 | 4 | 0 | 17 | 0 | 0 | 21 | 21 | 3 | 0 | 1 | 24 | 47 |
| Hourly Total | 0 | 4 | 10 | 0 | 1 | 14 | 16 | 0 | 107 | 0 | 2 | 123 | 69 | 6 | 0 | 1 | 75 | 212 |
| Grand Total | 13 | 24 | 39 | 0 | 12 | 76 | 49 | 1 | 568 | 0 | 4 | 618 | 394 | 22 | 0 | 2 | 416 | 1110 |
| Approach % | 17.1 | 31.6 | 51.3 | 0.0 | - | - | 7.9 | 0.2 | 91.9 | 0.0 | - | - | 94.7 | 5.3 | 0.0 | - | - | - |
| Total % | 1.2 | 2.2 | 3.5 | 0.0 | - | 6.8 | 4.4 | 0.1 | 51.2 | 0.0 | - | 55.7 | 35.5 | 2.0 | 0.0 | - | 37.5 | - |
| Lights | 13 | 22 | 37 | 0 | - | 72 | 46 | 1 | 541 | 0 | - | 588 | 372 | 20 | 0 | - | 392 | 1052 |
| % Lights | 100.0 | 91.7 | 94.9 | - | - | 94.7 | 93.9 | 100.0 | 95.2 | - | - | 95.1 | 94.4 | 90.9 | - | - | 94.2 | 94.8 |
| Buses | 0 | 0 | 2 | 0 | - | 2 | 1 | 0 | 18 | 0 | - | 19 | 13 | 0 | 0 | - | 13 | 34 |
| % Buses | 0.0 | 0.0 | 5.1 | - | - | 2.6 | 2.0 | 0.0 | 3.2 | - | - | 3.1 | 3.3 | 0.0 | - | - | 3.1 | 3.1 |
| Trucks | 0 | 1 | 0 | 0 | - | 1 | 2 | 0 | 8 | 0 | - | 10 | 3 | 2 | 0 | - | 5 | 16 |
| % Trucks | 0.0 | 4.2 | 0.0 | - | - | 1.3 | 4.1 | 0.0 | 1.4 | - | - | 1.6 | 0.8 | 9.1 | - | - | 1.2 | 1.4 |
| Bicycles on Road | 0 | 1 | 0 | 0 | - | 1 | 0 | 0 | 1 | 0 | - | 1 | 6 | 0 | 0 | - | 6 | 8 |
| % Bicycles on Road | 0.0 | 4.2 | 0.0 | - | - | 1.3 | 0.0 | 0.0 | 0.2 | - | - | 0.2 | 1.5 | 0.0 | - | - | 1.4 | 0.7 |
| Bicycles on Crosswalk | - | - | - | - | 1 | - | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | 8.3 | - | - | - | - | - | 0.0 | - | - | - | - | 0.0 | - | - |
| Pedestrians | - | - | - | - | 11 | - | - | - | - | - | 4 | - | - | - | - | 2 | - | - |
| % Pedestrians | - | - | - | - | 91.7 | - | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - |

Utica, NY
Washington/Lafayette
Wednesday, July 18, 2018
Location: 43.102719, -
75.232027

TRI-STATE TRAFFIC DATA
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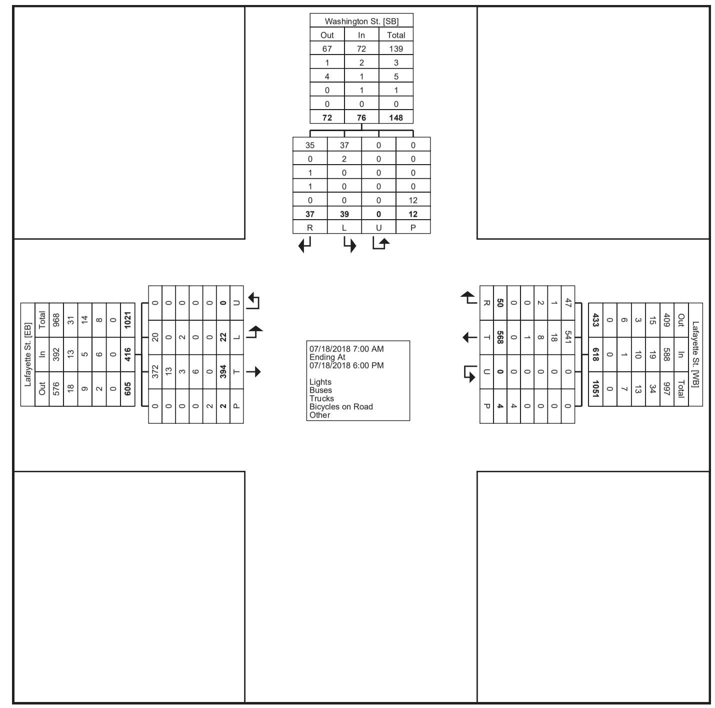
Count Name: 16. Washington and Lafayette
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 2




Turning Movement Data Plot

Utica, NY
Washington/Lafayette
Wednesday, July 18, 2018
Location: 43.102719, -75.232027

www.TSTData.com
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Count Name: 16. Washington and Lafayette
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 3

## Turning Movement Peak Hour Data (7:45 AM)

| Start Time | Washington St. Southbound | | | | | | Lafayette St. Westbound | | | | | | Lafayette St. Eastbound | | | | | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Right | Right on Red | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | U-Turn | Peds | App. Total | Thru | Left | U-Turn | Peds | App. Total | |
| 7:45 AM | 3 | 1 | 3 | 0 | 1 | 7 | 1 | 0 | 51 | 0 | 1 | 52 | 24 | 2 | 0 | 0 | 26 | 85 |
| 8:00 AM | 1 | 3 | 3 | 0 | 1 | 7 | 2 | 1 | 32 | 0 | 0 | 35 | 29 | 3 | 0 | 0 | 32 | 74 |
| 8:15 AM | 0 | 3 | 5 | 0 | 1 | 8 | 4 | 0 | 39 | 0 | 0 | 43 | 35 | 1 | 0 | 0 | 36 | 87 |
| 8:30 AM | 1 | 2 | 2 | 0 | 5 | 5 | 2 | 0 | 42 | 0 | 0 | 44 | 26 | 2 | 0 | 0 | 28 | 77 |
| Total | 5 | 9 | 13 | 0 | 8 | 27 | 9 | 1 | 164 | 0 | 1 | 174 | 114 | 8 | 0 | 0 | 122 | 323 |
| Approach % | 18.5 | 33.3 | 48.1 | 0.0 | - | - | 5.2 | 0.6 | 94.3 | 0.0 | - | - | 93.4 | 6.6 | 0.0 | - | - | - |
| Total % | 1.5 | 2.8 | 4.0 | 0.0 | - | 8.4 | 2.8 | 0.3 | 50.8 | 0.0 | - | 53.9 | 35.3 | 2.5 | 0.0 | - | 37.8 | - |
| PHF | 0.417 | 0.750 | 0.650 | 0.000 | - | 0.844 | 0.563 | 0.250 | 0.804 | 0.000 | - | 0.837 | 0.814 | 0.667 | 0.000 | - | 0.847 | 0.928 |
| Lights | 5 | 9 | 13 | 0 | - | 27 | 8 | 1 | 154 | 0 | - | 163 | 109 | 7 | 0 | - | 116 | 306 |
| % Lights | 100.0 | 100.0 | 100.0 | - | - | 100.0 | 88.9 | 100.0 | 93.9 | - | - | 93.7 | 95.6 | 87.5 | - | - | 95.1 | 94.7 |
| Buses | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 5 | 0 | - | 5 | 3 | 0 | 0 | - | 3 | 8 |
| % Buses | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 3.0 | - | - | 2.9 | 2.6 | 0.0 | - | - | 2.5 | 2.5 |
| Trucks | 0 | 0 | 0 | 0 | - | 0 | 1 | 0 | 5 | 0 | - | 6 | 1 | 1 | 0 | - | 2 | 8 |
| % Trucks | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 11.1 | 0.0 | 3.0 | - | - | 3.4 | 0.9 | 12.5 | - | - | 1.6 | 2.5 |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 1 | 0 | 0 | - | 1 | 1 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.9 | 0.0 | - | - | 0.8 | 0.3 |
| Bicycles on Crosswalk | - | - | - | - | 1 | - | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | 12.5 | - | - | - | - | - | 0.0 | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | - | 7 | - | - | - | - | - | 1 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | 87.5 | - | - | - | - | - | 100.0 | - | - | - | - | - | - | - |

Utica, NY
Washington/Lafayette
Wednesday, July 18, 2018
Location: 43.102719, -75.232027

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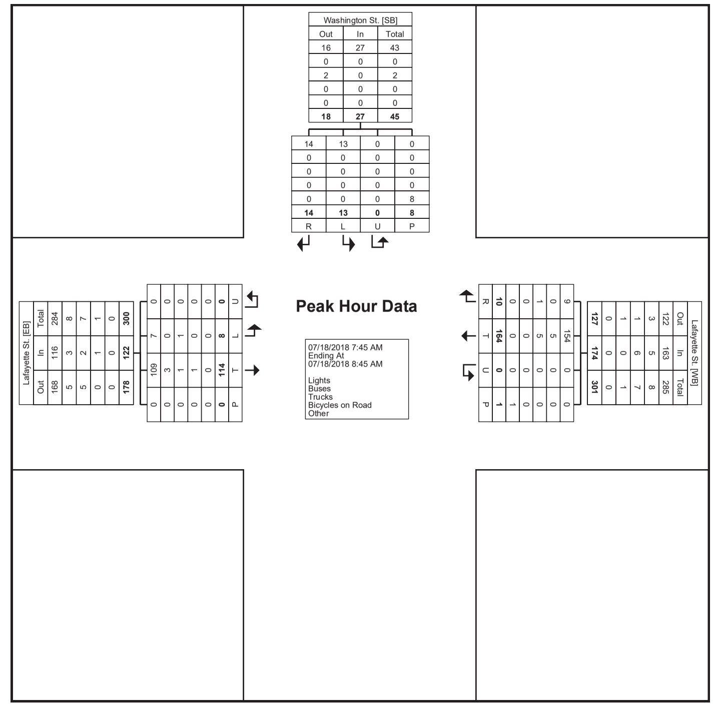
Count Name: 16. Washington and Lafayette
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 4

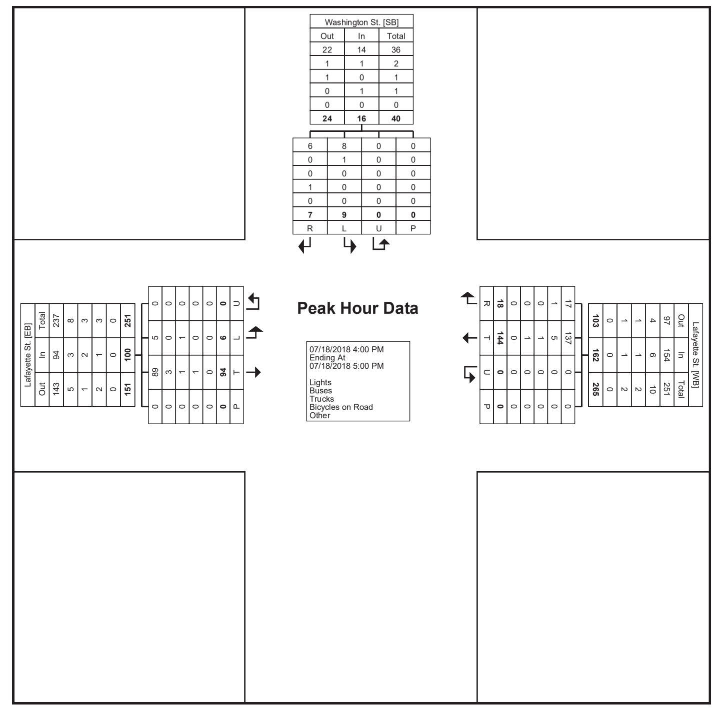



Turning Movement Peak Hour Data Plot (7:45 AM)

## Turning Movement Peak Hour Data (4:00 PM)

| | Washington St. Southbound | | | | | | Lafayette St. Westbound | | | | | | Lafayette St. Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Right on Red | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | U-Turn | Peds | App. Total | Thru | Left | U-Turn | Peds | App. Total | Int. Total |
| 4:00 PM | 2 | 1 | 2 | 0 | 0 | 5 | 10 | 0 | 38 | 0 | 0 | 48 | 35 | 1 | 0 | 0 | 36 | 89 |
| 4:15 PM | 1 | 3 | 5 | 0 | 0 | 9 | 4 | 0 | 45 | 0 | 0 | 49 | 16 | 3 | 0 | 0 | 19 | 77 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 33 | 0 | 0 | 35 | 26 | 1 | 0 | 0 | 27 | 62 |
| 4:45 PM | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 0 | 28 | 0 | 0 | 30 | 17 | 1 | 0 | 0 | 18 | 50 |
| Total | 3 | 4 | 9 | 0 | 0 | 16 | 18 | 0 | 144 | 0 | 0 | 162 | 94 | 6 | 0 | 0 | 100 | 278 |
| Approach % | 18.8 | 25.0 | 56.3 | 0.0 | - | - | 11.1 | 0.0 | 88.9 | 0.0 | - | - | 94.0 | 6.0 | 0.0 | - | - | - |
| Total % | 1.1 | 1.4 | 3.2 | 0.0 | - | 5.8 | 6.5 | 0.0 | 51.8 | 0.0 | - | 58.3 | 33.8 | 2.2 | 0.0 | - | 36.0 | - |
| PHF | 0.375 | 0.333 | 0.450 | 0.000 | - | 0.444 | 0.450 | 0.000 | 0.800 | 0.000 | - | 0.827 | 0.671 | 0.500 | 0.000 | - | 0.694 | 0.781 |
| Lights | 3 | 3 | 8 | 0 | - | 14 | 17 | 0 | 137 | 0 | - | 154 | 89 | 5 | 0 | - | 94 | 262 |
| % Lights | 100.0 | 75.0 | 88.9 | - | - | 87.5 | 94.4 | - | 95.1 | - | - | 95.1 | 94.7 | 83.3 | - | - | 94.0 | 94.2 |
| Buses | 0 | 0 | 1 | 0 | - | 1 | 1 | 0 | 5 | 0 | - | 6 | 3 | 0 | 0 | - | 3 | 10 |
| % Buses | 0.0 | 0.0 | 11.1 | - | - | 6.3 | 5.6 | - | 3.5 | - | - | 3.7 | 3.2 | 0.0 | - | - | 3.0 | 3.6 |
| Trucks | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 1 | 0 | - | 1 | 1 | 1 | 0 | - | 2 | 3 |
| % Trucks | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | - | 0.7 | - | - | 0.6 | 1.1 | 16.7 | - | - | 2.0 | 1.1 |
| Bicycles on Road | 0 | 1 | 0 | 0 | - | 1 | 0 | 0 | 1 | 0 | - | 1 | 1 | 0 | 0 | - | 1 | 3 |
| % Bicycles on Road | 0.0 | 25.0 | 0.0 | - | - | 6.3 | 0.0 | - | 0.7 | - | - | 0.6 | 1.1 | 0.0 | - | - | 1.0 | 1.1 |
| Bicycles on Crosswalk | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |






Turning Movement Peak Hour Data Plot (4:00 PM)

Utica, NY
Washington/Lafayette
Wednesday, July 18, 2018
Location: 43.102719, -75.232027

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184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-466-1469 jvetterlein@tstdata.com
Serving Transportation Professionals Since 1995

Count Name: 16. Washington and Lafayette
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 7

## 17. Seneca and Liberty - TMC

Wed Jul 18, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549108, Location: 43.103576, -75.229811, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Liberty St. | | | | | | | Liberty St. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Eastbound | | | | | | | Westbound | | | | | | |
| Time | L | T | R | U | RR | App | Ped* | L | T | R | U | RR | App | Ped* |
| 2018-07-18 7:00AM | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 9 | 181 | 0 | 16 | 1 | **517** | 1 |
| 7:15AM | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 9 | 187 | 0 | 25 | 0 | **552** | 1 |
| 7:30AM | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 14 | 242 | 0 | 31 | 0 | **507** | 0 |
| 7:45AM | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 16 | 273 | 0 | 30 | 0 | **423** | 1 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 48 | 883 | 0 | 102 | 1 | **2149** | 3 |
| 8:00AM | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 11 | 191 | 0 | 29 | 0 | **542** | 0 |
| 8:15AM | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 20 | 214 | 1 | 24 | 0 | **583** | 0 |
| 8:30AM | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 11 | 181 | 0 | 30 | 0 | **555** | 1 |
| 8:45AM | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 13 | 206 | 0 | 20 | 0 | **543** | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 55 | 792 | 1 | 103 | 0 | **382** | 1 |
| 9:00AM | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 0 |
| 4:00PM | 0 | 0 | 0 | 0 | 0 | **1** | 1 | 6 | 219 | 0 | 16 | 0 | **592** | 0 |
| 4:15PM | 0 | 0 | 0 | 0 | 0 | **1** | 1 | 6 | 200 | 0 | 12 | 0 | **520** | 1 |
| 4:30PM | 0 | 0 | 0 | 0 | 0 | **1** | 1 | 6 | 242 | 0 | 14 | 0 | **565** | 0 |
| 4:45PM | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 6 | 200 | 0 | 13 | 0 | **523** | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | **1** | 3 | 24 | 861 | 0 | 55 | 0 | **391** | 1 |
| 5:00PM | 0 | 0 | 0 | 0 | 0 | **1** | 1 | 3 | 196 | 0 | 14 | 0 | **524** | 0 |
| 5:15PM | 0 | 0 | 0 | 0 | 0 | **1** | 1 | 4 | 185 | 0 | 17 | 0 | **516** | 0 |
| 5:30PM | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 1 | 139 | 0 | 3 | 0 | **294** | 0 |
| 5:45PM | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 6 | 130 | 0 | 14 | 0 | **281** | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | **1** | 2 | 14 | 650 | 0 | 48 | 0 | **725** | 0 |
| 6:00PM | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 0 |
| **Total** | 0 | 0 | 0 | 0 | 0 | **1** | 5 | 141 | 3186 | 1 | 308 | 1 | **4647** | 5 |
| **% Approach** | 0% | 0% | 0% | 0% | 0% | - | - | 3.9% | 87.6% | 0% | 8.5% | 0% | - | - |
| **% Total** | 0% | 0% | 0% | 0% | 0% | **1%** | - | 3.5% | 80.0% | 0% | 7.7% | 0% | **32.4%** | - |
| **Lights** | 0 | 0 | 0 | 0 | 0 | **1** | - | 131 | 3040 | 1 | 298 | 1 | **4972** | - |
| **% Lights** | 0% | 0% | 0% | 0% | 0% | - | - | 92.9% | 95.4% | 100% | 96.8% | 100% | **38.9%** | - |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 0 | 0 | 0 | 0 | **1** | - | 6 | 129 | 0 | 5 | 0 | **291** | - |
| **% Articulated Trucks and Single-Unit Trucks** | 0% | 0% | 0% | 0% | 0% | - | - | 4.3% | 4.0% | 0% | 1.6% | 0% | **4.0%** | - |
| **Buses** | 0 | 0 | 0 | 0 | 0 | **1** | - | 4 | 16 | 0 | 4 | 0 | **59** | - |
| **% Buses** | 0% | 0% | 0% | 0% | 0% | - | - | 2.8% | 0.5% | 0% | 1.3% | 0% | **1.7%** | - |
| **Bicycles on Road** | 0 | 0 | 0 | 0 | 0 | **1** | - | 0 | 1 | 0 | 1 | 0 | **5** | - |
| **% Bicycles on Road** | 0% | 0% | 0% | 0% | 0% | - | - | 0% | 0% | 0% | 0.3% | 0% | **1.2%** | - |
| Pedestrians | - | - | - | - | - | - | 4 | - | - | - | - | - | - | 4 |
| % Pedestrians | - | - | - | - | - | - | 80.0% | - | - | - | - | - | - | 80.0% |
| Bicycles on Crosswalk | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 1 |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 20.0% | - | - | - | - | - | - | 20.0% |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

**17. Seneca and Liberty - TMC**
Wed Jul 18, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549108, Location: 43.103576, -75.229811, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

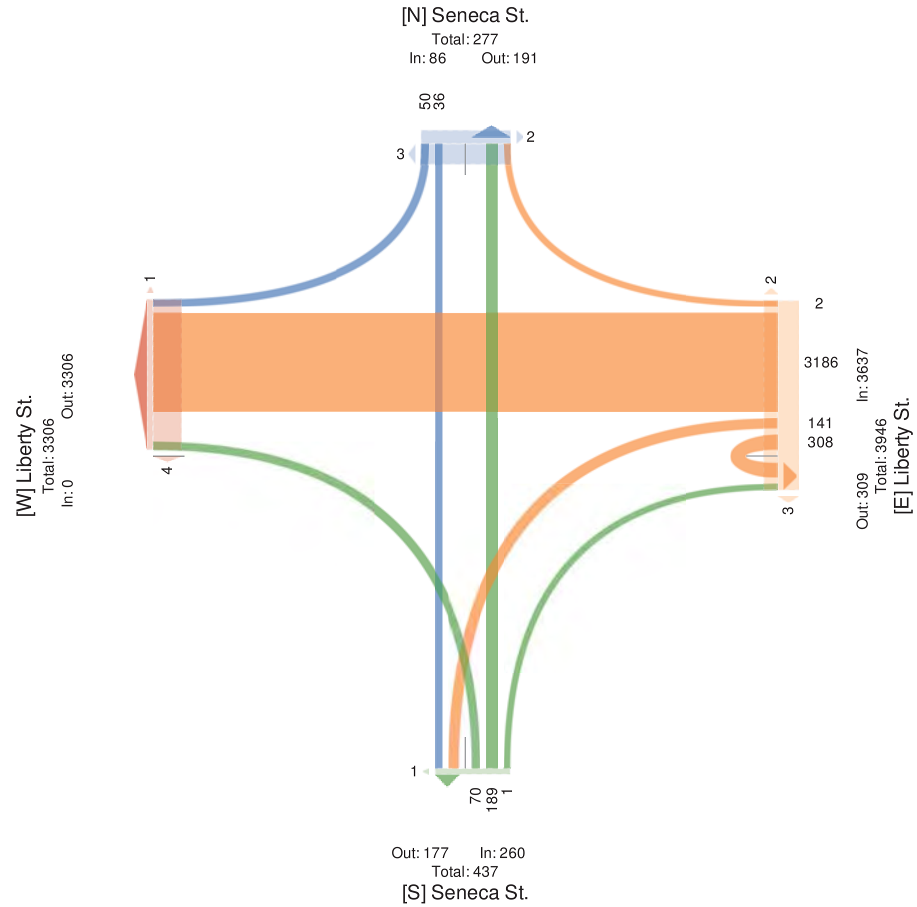
| Leg<br>Direction | Seneca St.<br>Northbound | | | | | | | Seneca St.<br>Southbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | L | T | R | U | RR | **App** | Ped* | L | T | R | U | RR | **App** | Ped* | **Int** |
| 2018-07-18 7:00AM | 4 | 10 | 0 | 0 | 0 | **16** | 0 | 0 | 0 | 2 | 0 | 0 | **2** | 0 | **228** |
| 7:15AM | 2 | 17 | 1 | 0 | 0 | **25** | 0 | 0 | 1 | 1 | 0 | 0 | **2** | 0 | **268** |
| 7:30AM | 1 | 16 | 0 | 0 | 0 | **14** | 0 | 0 | 1 | 4 | 0 | 1 | **3** | 0 | **815** |
| 7:45AM | 4 | 17 | 0 | 0 | 0 | **21** | 1 | 0 | 1 | 1 | 0 | 0 | **2** | 0 | **862** |
| Hourly Total | 11 | 60 | 1 | 0 | 0 | **42** | 1 | 0 | 3 | 8 | 0 | 1 | **12** | 0 | **1119** |
| 8:00AM | 2 | 14 | 0 | 0 | 0 | **13** | 0 | 0 | 3 | 0 | 0 | 0 | **8** | 0 | **275** |
| 8:15AM | 3 | 26 | 0 | 0 | 0 | **20** | 0 | 0 | 3 | 1 | 0 | 0 | **6** | 0 | **202** |
| 8:30AM | 3 | 13 | 0 | 0 | 0 | **13** | 0 | 0 | 5 | 2 | 0 | 1 | **9** | 1 | **263** |
| 8:45AM | 4 | 17 | 0 | 0 | 0 | **21** | 0 | 0 | 1 | 0 | 0 | 0 | **1** | 0 | **231** |
| Hourly Total | 12 | 70 | 0 | 0 | 0 | **92** | 0 | 0 | 12 | 3 | 0 | 1 | **13** | 1 | **1560** |
| 9:00AM | 0 | 0 | 0 | 0 | 0 | **5** | 0 | 0 | 0 | 0 | 0 | 0 | **5** | 0 | **5** |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | **5** | 0 | 0 | 0 | 0 | 0 | 0 | **5** | 0 | **5** |
| 4:00PM | 9 | 12 | 0 | 0 | 0 | **21** | 0 | 0 | 3 | 7 | 0 | 2 | **12** | 1 | **246** |
| 4:15PM | 1 | 8 | 0 | 0 | 0 | **0** | 0 | 0 | 0 | 1 | 0 | 0 | **1** | 1 | **229** |
| 4:30PM | 6 | 5 | 0 | 0 | 0 | **11** | 0 | 0 | 1 | 3 | 0 | 3 | **4** | 0 | **295** |
| 4:45PM | 10 | 8 | 0 | 0 | 0 | **19** | 0 | 0 | 4 | 5 | 0 | 2 | **11** | 0 | **269** |
| Hourly Total | 26 | 33 | 0 | 0 | 0 | **70** | 0 | 0 | 8 | 16 | 0 | 7 | **81** | 2 | **1585** |
| 5:00PM | 6 | 6 | 0 | 0 | 0 | **12** | 0 | 0 | 3 | 5 | 0 | 0 | **9** | 0 | **288** |
| 5:15PM | 1 | 6 | 0 | 0 | 0 | **4** | 0 | 0 | 4 | 1 | 0 | 2 | **4** | 2 | **225** |
| 5:30PM | 9 | 10 | 0 | 0 | 0 | **10** | 0 | 0 | 4 | 5 | 0 | 0 | **0** | 0 | **141** |
| 5:45PM | 5 | 4 | 0 | 0 | 0 | **0** | 0 | 0 | 2 | 1 | 0 | 0 | **8** | 0 | **132** |
| Hourly Total | 21 | 26 | 0 | 0 | 0 | **64** | 0 | 0 | 13 | 12 | 0 | 2 | **24** | 2 | **493** |
| 6:00PM | 0 | 0 | 0 | 0 | 0 | **5** | 0 | 0 | 0 | 0 | 0 | 0 | **5** | 0 | **5** |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | **5** | 0 | 0 | 0 | 0 | 0 | 0 | **5** | 0 | **5** |
| **Total** | 70 | 189 | 1 | 0 | 0 | **235** | 1 | 0 | 36 | 39 | 0 | 11 | **93** | 5 | **8098** |
| **% Approach** | 26.9% | 72.7% | 0.4% | 0% | 0% | - | - | 0% | 41.9% | 45.3% | 0% | 12.8% | - | - | - |
| **% Total** | 1.8% | 4.7% | 0% | 0% | 0% | **3.7%** | - | 0% | 0.9% | 1.0% | 0% | 0.3% | **2.2%** | - | - |
| **Lights** | 68 | 185 | 0 | 0 | 0 | **278** | - | 0 | 34 | 36 | 0 | 10 | **95** | - | 3804 |
| **% Lights** | 97.1% | 97.9% | 0% | 0% | 0% | **04.8%** | - | 0% | 94.4% | 92.3% | 0% | 90.9% | **08.5%** | - | 95.5% |
| **Articulated Trucks and Single-Unit Trucks** | 2 | 2 | 0 | 0 | 0 | **6** | - | 0 | 0 | 0 | 0 | 0 | **5** | - | 144 |
| **% Articulated Trucks and Single-Unit Trucks** | 2.9% | 1.1% | 0% | 0% | 0% | **1.7%** | - | 0% | 0% | 0% | 0% | 0% | **5%** | - | 3.6% |
| **Buses** | 0 | 1 | 0 | 0 | 0 | **1** | - | 0 | 1 | 3 | 0 | 1 | **7** | - | 30 |
| **% Buses** | 0% | 0.5% | 0% | 0% | 0% | **5.6%** | - | 0% | 2.8% | 7.7% | 0% | 9.1% | **7.9%** | - | 0.8% |
| **Bicycles on Road** | 0 | 1 | 1 | 0 | 0 | **2** | - | 0 | 1 | 0 | 0 | 0 | **1** | - | 5 |
| **% Bicycles on Road** | 0% | 0.5% | 100% | 0% | 0% | **5.9%** | - | 0% | 2.8% | 0% | 0% | 0% | **1.2%** | - | 0.1% |
| Pedestrians | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 3 | |
| % Pedestrians | - | - | - | - | - | - | 0% | - | - | - | - | - | - | 60.0% | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 2 | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 100% | - | - | - | - | - | - | 40.0% | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn



**17. Seneca and Liberty - TMC**
Wed Jul 18, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549108, Location: 43.103576, -75.229811, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US



## 17. Seneca and Liberty - TMC

Wed Jul 18, 2018
P M aek( 4- 5) 0P M O85) 0P Mv Or Heokll aek( ACuo
P ll s lkLLeL4i ght cL, PocgTulkced n ouT(L kSd UgShleOBSgc n ouT(L, yuLeL, aedeLcogkSL, y gTRTleL CS wCkd, y gTRTleL CS s oCLLmkl( v
P ll MCHeI eScL
D 593. 108, i CTkogCS53) 710) 9-6, O9722. 811, Ugre s Cde5BcgTk, Nem YCo(

aoCHgled bR5n ogOUckce n okffgT
: kck, DST7
183 yk(eowCkd,
s CkceLHgle, aP, 1. ) 20, BU

| i eh<br>: gpe TcgCS | i gbeodR Uc7<br>EkLcb Cu Sd | | | | | | | i gbeodR Uc7<br>We Lcb Cu Sd | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ngI e | i | n | w | B | ww | **App** | aed* | i | n | w | B | ww | **App** | aed* |
| 20180-O8 - 5) 0PM | 0 | 0 | 0 | 0 | 0 | **2** | 0 | 13 | 232 | 0 | ) 1 | 0 | **403** | 0 |
| - 539PM | 0 | 0 | 0 | 0 | 0 | **2** | 0 | 16 | 2- ) | 0 | ) 0 | 0 | **791** | 1 |
| 8500PM | 0 | 0 | 0 | 0 | 0 | **2** | 0 | 11 | 1. 1 | 0 | 2. | 0 | **479** | 0 |
| 8519PM | 0 | 0 | 0 | 0 | 0 | **2** | 0 | 20 | 213 | 1 | 23 | 0 | **451** | 0 |
| **6 Tot a** | 0 | 0 | 0 | 0 | 0 | **2** | 0 | 61 | . 20 | 1 | 113 | 0 | **9211** | 1 |
| **% ApprTt ch** | 0% | 0% | 0% | 0% | 0% | - | O | 976% | 8) 7. % | 071% | 1073% | 0% | - | O |
| **% 6 Tot a** | 0% | 0% | 0% | 0% | 0% | **2%** | O | 971% | - - 71% | 071% | . 79% | 0% | **1980%** | O |
| **. PH** | O | O | O | O | O | - | O | 07-6) | 07832 | 07290 | 07. 1. | O | **28051** | O |
| **FLi hcg** | 0 | 0 | 0 | 0 | 0 | **2** | O | 98 | 868 | 1 | 11) | 0 | **92s 2** | O |
| **% FLi hcg** | 0% | 0% | 0% | 0% | 0% | - | O | . 971% | . 37) % | 100% | . . 71% | 0% | **1s 81%** | O |
| **Ardcuat ed 6 ruckg t nd SLni æ-UnLo6 ruckg** | 0 | 0 | 0 | 0 | 0 | **2** | O | 2 | 39 | 0 | 0 | 0 | **s 3** | O |
| **% Ardcuat ed 6 ruckg t nd SLni æ-UnLo6 ruckg** | 0% | 0% | 0% | 0% | 0% | - | O | ) 7) % | 37. % | 0% | 0% | 0% | **s 87%** | O |
| **Bugeg** | 0 | 0 | 0 | 0 | 0 | **2** | O | 1 | - | 0 | 1 | 0 | **1** | O |
| **% Bugeg** | 0% | 0% | 0% | 0% | 0% | - | O | 176% | 078% | 0% | 07. % | 0% | **280%** | O |
| **BIcycæg Tn RTt d** | 0 | 0 | 0 | 0 | 0 | **2** | O | 0 | 0 | 0 | 0 | 0 | **2** | O |
| **% BIcycæg Tn RTt d** | 0% | 0% | 0% | 0% | 0% | - | O | 0% | 0% | 0% | 0% | 0% | **2%** | O |
| a e d e LcogkSL | O | O | O | O | O | O | 0 | O | O | O | O | O | O | 0 |
| % a e d e LcogkSL | O | O | O | O | O | O | O | O | O | O | O | O | O | 0% |
| y gTRTle L CS s oCLLmkl( | O | O | O | O | O | O | 0 | O | O | O | O | O | O | 1 |
| % y gTRTle L CS s oCLLmkl( | O | O | O | O | O | O | O | O | O | O | O | O | O | 100% |

*a e d e LcogkSL kSd y gTRTle L CS s oCLLmkl( 7i 5i e fc, w5wght c, ww5wght cCS oed, n 5n t ou, B5BOn uoS



## 17. Seneca and Liberty - TMC

Wed Jul 18, 2018
P M aek( 4: 3-0P M 583-0P M) 5Overkll aek( Hour
P ll AlkCCeC4s Li ghC, Prhtulkhed c rut (CkTd nITi le5S Tlhc rut (C, UuCeC, aedeChrIkTC, UIt Bt leC oT y okd, UIt Bt leCoT AroCCRkl( )
P ll MoveweThC
mI 3D9. 108, s ot kHoT39-610- D: 7, 5: D622. 811, n lIe Aode3S hIt k, NeR Yor(

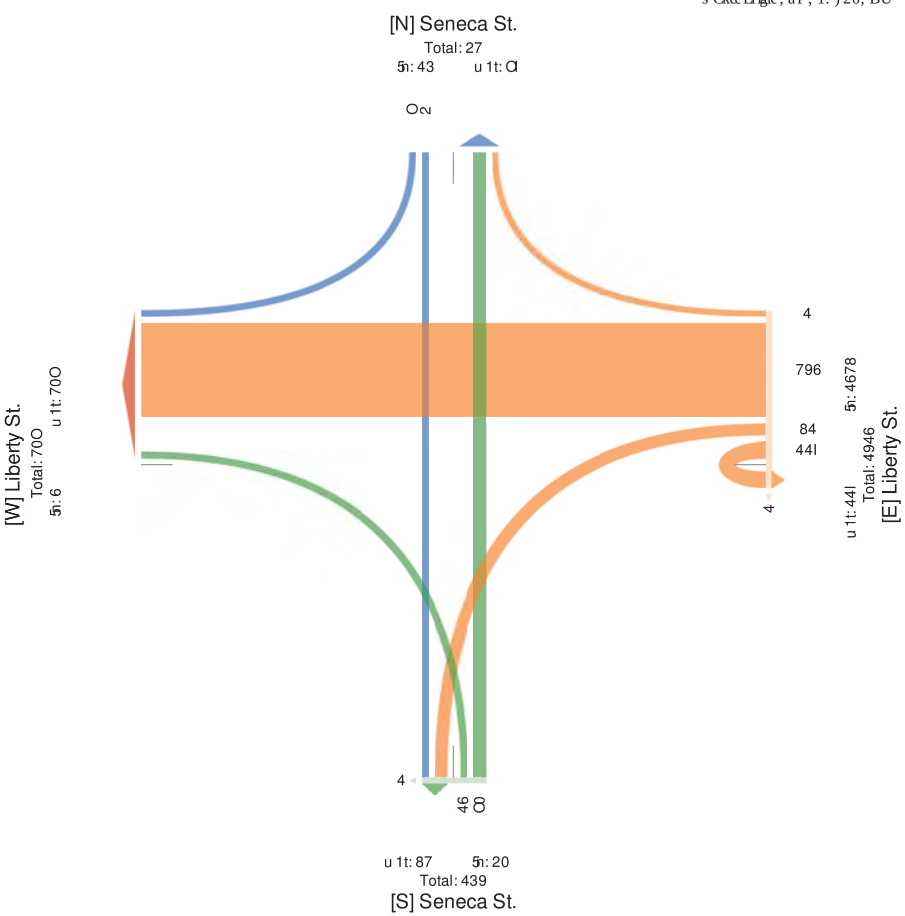
arovIded bB3c rI5n hkhe c rkffIt
I khk, mTt 6
189 Uk(er y okd,
AokheCvIlle, aP, 1. - 20, S n

| s ei<br>I Iret hIoT | ne Te t k nI6<br>NorIgbouTd | | | | | | | ne Te t k nI6<br>noulgbouTd | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| c Iwe | s | c | y | S | yy | **App** | aed* | s | c | y | S | yy | **App** | aed* | **Int** |
| 20185 0: 518 : 3-0PM | 1 | 17 | 0 | 0 | 0 | **25** | 0 | 0 | 1 | 9 | 0 | 1 | **1** | 0 | **724** |
| : 39DPM | 9 | 1: | 0 | 0 | 0 | **82** | 1 | 0 | 1 | 1 | 0 | 0 | **8** | 0 | **708** |
| 8300PM | 2 | 19 | 0 | 0 | 0 | **21** | 0 | 0 | - | 0 | 0 | 0 | **7** | 0 | **834** |
| 831DPM | - | 27 | 0 | 0 | 0 | **86** | 0 | 0 | - | 1 | 0 | 0 | **0** | 0 | **868** |
| **9 Ttoa** | 10 | : - | 0 | 0 | 0 | **l 7** | 1 | 0 | 8 | 7 | 0 | 1 | **23** | 0 | **2260** |
| **% ApprToch** | 1260% | 8860% | 0% | 0% | 0% | - | 5 | 0% | D-6-% | 9060% | 0% | 76 % | - | 5 | 5 |
| **% 9 Ttoa** | 068% | 761% | 0% | 0% | 0% | **5.4%** | 5 | 0% | 06 % | 06D% | 0% | 061% | **2.7%** | 5 | 5 |
| **PHF** | 0672D | 06 02 | 5 | 5 | 5 | **4.521** | 5 | 5 | 0677: | 06- : D | 5 | 062D0 | **4.183** | 5 | 068: - |
| **Lights** | . | : 2 | 0 | 0 | 0 | **l 2** | 5 | 0 | : | 9 | 0 | 0 | **22** | 5 | 11- 2 |
| **% Lights** | . 060% | . 867% | 0% | 0% | 0% | **65.1%** | 5 | 0% | 8: 6D% | 776 % | 0% | 0% | **57.7%** | 5 | . 968% |
| **Articuaoted 9 rucks ond Singæ-Unit 9 rucks** | 1 | 0 | 0 | 0 | 0 | **2** | 5 | 0 | 0 | 0 | 0 | 0 | **4** | 5 | 98 |
| **% Articuaoted 9 rucks ond Singæ-Unit 9 rucks** | 1060% | 0% | 0% | 0% | 0% | **2.8%** | 5 | 0% | 0% | 0% | 0% | 0% | **4%** | 5 | 960% |
| **Buses** | 0 | 0 | 0 | 0 | 0 | **4** | 5 | 0 | 1 | 2 | 0 | 1 | **0** | 5 | 1- |
| **% Buses** | 0% | 0% | 0% | 0% | 0% | **4%** | 5 | 0% | 126D% | - - 6-% | 0% | 100% | **81.5%** | 5 | 161% |
| **Bicycæs Tn RTod** | 0 | 1 | 0 | 0 | 0 | **2** | 5 | 0 | 0 | 0 | 0 | 0 | **4** | 5 | 1 |
| **% Bicycæs Tn RTod** | 0% | 169% | 0% | 0% | 0% | **2.8%** | 5 | 0% | 0% | 0% | 0% | 0% | **4%** | 5 | 061% |
| a e de ChrIkTC | 5 | 5 | 5 | 5 | 5 | 5 | 0 | 5 | 5 | 5 | 5 | 5 | 5 | 0 | |
| % a e de ChrIkTC | 5 | 5 | 5 | 5 | 5 | 5 | 0% | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| UIt Bt le C o T AroCCRkl( | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 0 | |
| % UIt Bt le C o T AroCCRkl( | 5 | 5 | 5 | 5 | 5 | 5 | 100% | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |

*a e de ChrIkTCkTd UIt Bt leCoT AroCCRkl( 6s 3s e fh, y 3y Li gh, y y 3y Li ghoTred, c 3c gru, S 3S 5c urT

**17. Seneca and Liberty - TMC**
Wed Jul 18, 2018
P M aek( 4- 5) 0P M C85) 0P Mv Cr Heokll aek( ACuo
Pll s lkLLeL 4i ght cL, PoqTulkced n ouT(LkSd UgShle CBSgn ouT(L, yuLeL, aede LogkSL, ygTRTleL
CS wCkd, ygTRTleL CS s oCLLmkl(v
Pll MCHeI eSdL
D 593. 108, i CTkogCS53) 710) 9- 6, C9722. 811, Ugre s Cde 5BogTk, Nem YCo(

aoCHgled bR5n ogQUckce n okffgT
: kck, DST7
183 yk( eowCkd,
s CkceLHglle, aP, 1. ) 20, BU






**17. Seneca and Liberty - TMC**
Wed Jul 18, 2018
Forced Peak (7:45AM - 8:45AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 546108, Location: 43.103579, -75.226811, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 16320, US

| Leg | Liberty St. | | | | | | | Liberty St. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Eastbound | | | | | | | Westbound | | | | | | |
| Time | L | T | R | U | RR | App | Ped* | L | T | R | U | RR | App | Ped* |
| 2018-07-18 7:45AM | 0 | 0 | 0 | 0 | 0 | **2** | 0 | 19 | 273 | 0 | 30 | 0 | **403** | 1 |
| 8:00AM | 0 | 0 | 0 | 0 | 0 | **2** | 0 | 11 | 161 | 0 | 26 | 0 | **740** | 0 |
| 8:15AM | 0 | 0 | 0 | 0 | 0 | **2** | 0 | 20 | 214 | 1 | 24 | 0 | **793** | 0 |
| 8:30AM | 0 | 0 | 0 | 0 | 0 | **2** | 0 | 11 | 181 | 0 | 30 | 0 | **777** | 1 |
| **1 5tc** | 0 | 0 | 0 | 0 | 0 | **2** | 0 | 58 | 856 | 1 | 113 | 0 | **0240** | 2 |
| **t Appl 5T%** | 0% | 0% | 0% | 0% | 0% | **r** | - | 5.9% | 83.3% | 0.1% | 11.0% | 0% | **r** | - |
| **t al 56To** | 0% | 0% | 0% | 0% | 0% | **2t** | - | 5.1% | 79.0% | 0.1% | 10.0% | 0% | **30c7t** | - |
| **h- 8** | - | - | - | - | - | **r** | - | 0.725 | 0.787 | 0.250 | 0.642 | - | **2c 2.** | - |
| **PHF 6L** | 0 | 0 | 0 | 0 | 0 | **2** | - | 59 | 811 | 1 | 110 | 0 | **3i .** | - |
| **t aPHF 6L** | 0% | 0% | 0% | 0% | 0% | **r** | - | 69.9% | 64.4% | 100% | 67.3% | 0% | **3g c3t** | - |
| **Al 6H%s oT6ue al l s %dLaTke an HtFourS kH6al l s %dL** | 0 | 0 | 0 | 0 | 0 | **2** | - | 2 | 43 | 0 | 2 | 0 | **g i** | - |
| **t aAl 6H%s oT6ue al l s %dLaTke an HtFourS kH6al l s %dL** | 0% | 0% | 0% | 0% | 0% | **r** | - | 3.4% | 5.0% | 0% | 1.8% | 0% | **g cUt** | - |
| **Bs LuL** | 0 | 0 | 0 | 0 | 0 | **2** | - | 0 | 5 | 0 | 1 | 0 | **U** | - |
| **t aBs LuL** | 0% | 0% | 0% | 0% | 0% | **r** | - | 0% | 0.9% | 0% | 0.6% | 0% | **2cUt** | - |
| **BH%y%auLa5kaR5Te** | 0 | 0 | 0 | 0 | 0 | **2** | - | 0 | 0 | 0 | 0 | 0 | **2** | - |
| **t aBH%y%auLa5kaR5Te** | 0% | 0% | 0% | 0% | 0% | **r** | - | 0% | 0% | 0% | 0% | 0% | **2t** | - |
| Pedestrians | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 1 |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | 50.0% |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 1 |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | 50.0% |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

## 17. Seneca and Liberty - TMC

Wed Jul 18, 2018
Forced Peak (7:45AM - 8:45AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549108, Location: 43.103576, -75.229811, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Seneca St. | | | | | | | Seneca St. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Northbound | | | | | | | Southbound | | | | | | | |
| Time | L | T | R | U | RR | App | Ped* | L | T | R | U | RR | App | Ped* | Int |
| 2018-07-18 7:45AM | 4 | 17 | 0 | 0 | 0 | 25 | 1 | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 172 |
| 8:00AM | 2 | 14 | 0 | 0 | 0 | 54 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 0 | 280 |
| 8:15AM | 3 | 26 | 0 | 0 | 0 | 23 | 0 | 0 | 3 | 1 | 0 | 0 | 7 | 0 | 232 |
| 8:30AM | 3 | 13 | 0 | 0 | 0 | 54 | 0 | 0 | 5 | 2 | 0 | 1 | 6 | 1 | 274 |
| 9 ıtoa | 12 | 70 | 0 | 0 | 0 | 62 | 1 | 0 | 12 | 4 | 0 | 1 | 5l | 1 | 5510 |
| % ApprToch | 14.6% | 85.4% | 0% | 0% | 0% | - | - | 0% | 70.6% | 23.5% | 0% | 5.9% | - | - | - |
| % 9 Ttoa | 1.1% | 6.2% | 0% | 0% | 0% | l.1% | - | 0% | 1.1% | 0.4% | 0% | 0.1% | 5.8% | - | - |
| PHF | 0.750 | 0.673 | - | - | - | 0.l 0l | - | - | 0.600 | 0.500 | - | 0.250 | 0.815 | - | 0.826 |
| Lights | 11 | 69 | 0 | 0 | 0 | 60 | - | 0 | 11 | 4 | 0 | 1 | 54 | - | 1074 |
| % Lights | 91.7% | 98.6% | 0% | 0% | 0% | 3l.4% | - | 0% | 91.7% | 100% | 0% | 100% | 37.5% | - | 95.0% |
| Articuaoted 9 rucks ond Singæ-Unit 9 rucks | 1 | 0 | 0 | 0 | 0 | 5 | - | 0 | 0 | 0 | 0 | 0 | 0 | - | 48 |
| % Articuaoted 9 rucks ond Singæ-Unit 9 rucks | 8.3% | 0% | 0% | 0% | 0% | 5.2% | - | 0% | 0% | 0% | 0% | 0% | 0% | - | 4.2% |
| Buses | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 1 | 0 | 0 | 0 | 5 | - | 7 |
| % Buses | 0% | 0% | 0% | 0% | 0% | 0% | - | 0% | 8.3% | 0% | 0% | 0% | 8.3% | - | 0.6% |
| Bicycæs Tn RTod | 0 | 1 | 0 | 0 | 0 | 5 | - | 0 | 0 | 0 | 0 | 0 | 0 | - | 1 |
| % Bicycæs Tn RTod | 0% | 1.4% | 0% | 0% | 0% | 5.2% | - | 0% | 0% | 0% | 0% | 0% | 0% | - | 0.1% |
| Pedestrians | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 1 | |
| % Pedestrians | - | - | - | - | - | - | 0% | - | - | - | - | - | - | 100% | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 100% | - | - | - | - | - | - | 0% | - |

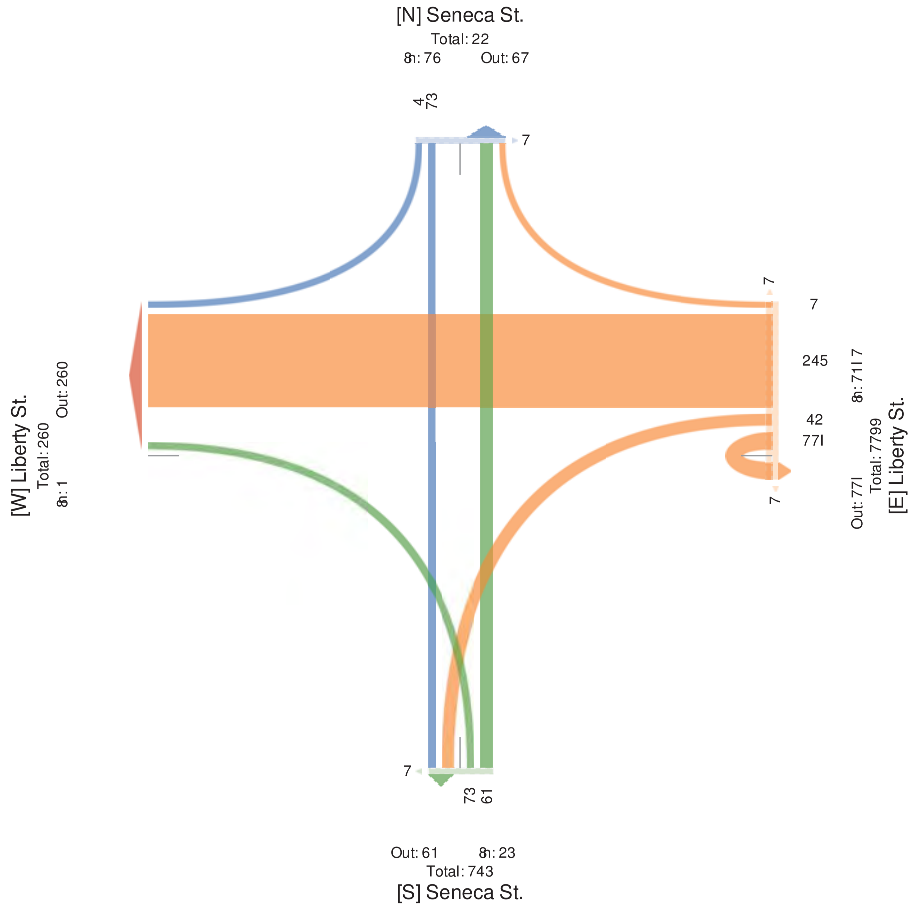
*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn



## 17. Seneca and Liberty - TMC

Wed Jul 18, 2018
FLnged t eh( 7AM94 P 68M94 P )
4 ll Clhaaea 7s ir cTa, 4 nTigulhTed k nug( a hSd UiSr le6BSiTk nug( a, y uaea, t edeaTnihSa, y igoglea LS RLhd, y igoglea LS CnLaawhl( )
4 ll P LvemeSTa
IDM9- : 108, s LghTiLSM53 1059A , 6A9322: 811, UiTe CLdeMBTigh, New YLn(

t nLvided boMk ni6UThTe k nhffig DhTh, ISg3
18- yh( enRLhd,
CLhTeaville, t 4 , 1: 520, BU






Revised A - 95

## 17. Seneca and Liberty - TMC

Wed Jul 18, 2018
AM AePa k( AM - 9 AM)
Cll s lPLLeLki ght rL, CcrgTulPred n cuTaL PSd UgShle-BSgr n cuTaL, yuLeL, AedeLrcgPSL, ygToTleL RS wRPd, ygToTleL RS s cRLLv Pla)
Cll MRme I eSrL
D 59( 4108, i RTPrgRS5( 631069. 7, -. 93224811, Ugre s Rde5BrgTP, Nev YRca

AcRmgled bo5n cgUrPre n cPffgT
: PrP, DST3
18( yPaec wRPd,
s RPreLmgle, AC, 14620, BU

| i eh<br>: gce TrgRS | i gbe cro Ur3<br>EPLrbRuSd | | | | | | | i gbe cro Ur3<br>WeLrbRuSd | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ngI e | i | n | w | B | ww | **App** | Aed* | i | n | w | B | ww | **App** | Aed* |
| 2018-0. -18 ( 500 AM | 0 | 0 | 0 | 0 | 0 | **0** | 1 | 7 | 214 | 0 | 17 | 0 | **241** | 0 |
| ( 519 AM | 0 | 0 | 0 | 0 | 0 | **0** | 1 | 7 | 200 | 0 | 12 | 0 | **218** | 1 |
| ( 560 AM | 0 | 0 | 0 | 0 | 0 | **0** | 1 | 7 | 2( 2 | 0 | 1( | 0 | **262** | 0 |
| ( 5( 9 AM | 0 | 0 | 0 | 0 | 0 | **0** | 0 | 7 | 200 | 0 | 16 | 0 | **219** | 0 |
| **Total** | 0 | 0 | 0 | 0 | 0 | **0** | 6 | 2( | 871 | 0 | 99 | 0 | **940** | 1 |
| **% Approach** | 0% | 0% | 0% | 0% | 0% | - | - | 237% | 4137% | 0% | 934% | 0% | - | - |
| **% Total** | 0% | 0% | 0% | 0% | 0% | **0%** | - | 236% | 8637% | 0% | 936% | 0% | **91.3%** | - |
| **PHF** | - | - | - | - | - | - | - | 13000 | 03884 | - | 03894 | - | **0.897** | - |
| **Lights** | 0 | 0 | 0 | 0 | 0 | **0** | - | 22 | 860 | 0 | 92 | 0 | **904** | - |
| **% Lights** | 0% | 0% | 0% | 0% | 0% | - | - | 413 % | 473( % | 0% | 4( 39% | 0% | **96.2%** | - |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 0 | 0 | 0 | 0 | **0** | - | 1 | 24 | 0 | 1 | 0 | **31** | - |
| **% Articulated Trucks and Single-Unit Trucks** | 0% | 0% | 0% | 0% | 0% | - | - | ( 32% | 63( % | 0% | 138% | 0% | **3.3%** | - |
| **Buses** | 0 | 0 | 0 | 0 | 0 | **0** | - | 1 | 1 | 0 | 1 | 0 | **3** | - |
| **% Buses** | 0% | 0% | 0% | 0% | 0% | - | - | ( 32% | 031% | 0% | 138% | 0% | **0.3%** | - |
| **Bicycles on Road** | 0 | 0 | 0 | 0 | 0 | **0** | - | 0 | 1 | 0 | 1 | 0 | **2** | - |
| **% Bicycles on Road** | 0% | 0% | 0% | 0% | 0% | - | - | 0% | 031% | 0% | 138% | 0% | **0.2%** | - |
| AedeLrcgPSL | - | - | - | - | - | - | 2 | - | - | - | - | - | - | 1 |
| % AedeLrcgPSL | - | - | - | - | - | - | 773 % | - | - | - | - | - | - | 100% |
| ygToTleL RS s cRLLv Pla | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 0 |
| % ygToTleL RS s cRLLv Pla | - | - | - | - | - | - | 6636% | - | - | - | - | - | - | 0% |

*AedeLrcgPSL PSd ygToTleL RS s cRLLv Pla3i 5i efr, w5wght r, ww5wght r RS ced, n 5n t cu, B5B-n ucS



## 17. Seneca and Liberty - TMC

Wed Jul 18, 2018
AM AePa k( AM 7: AM3
- ll ) lPCCeCksLi ghC, - thLrulPhed c turaCPTd nLTi le7S TLhc turaC, UuCeC, AedeChtlPTC, ULrBrleC yT o yPd, ULrBrleCyT ) tyCCRPla3
- ll Mywev eThC
ml D ( 5108, syrPhlyTD( 49104: . 6, 7. : 9225811, nLhe ) ydeDShLrP, NeR Yyta

Atywlded bBDc tLZnhPhe c tPfflr
I PhP, mTr9
18( UPaet o yPd,
) yPheCwllle, A- , 15420, S n

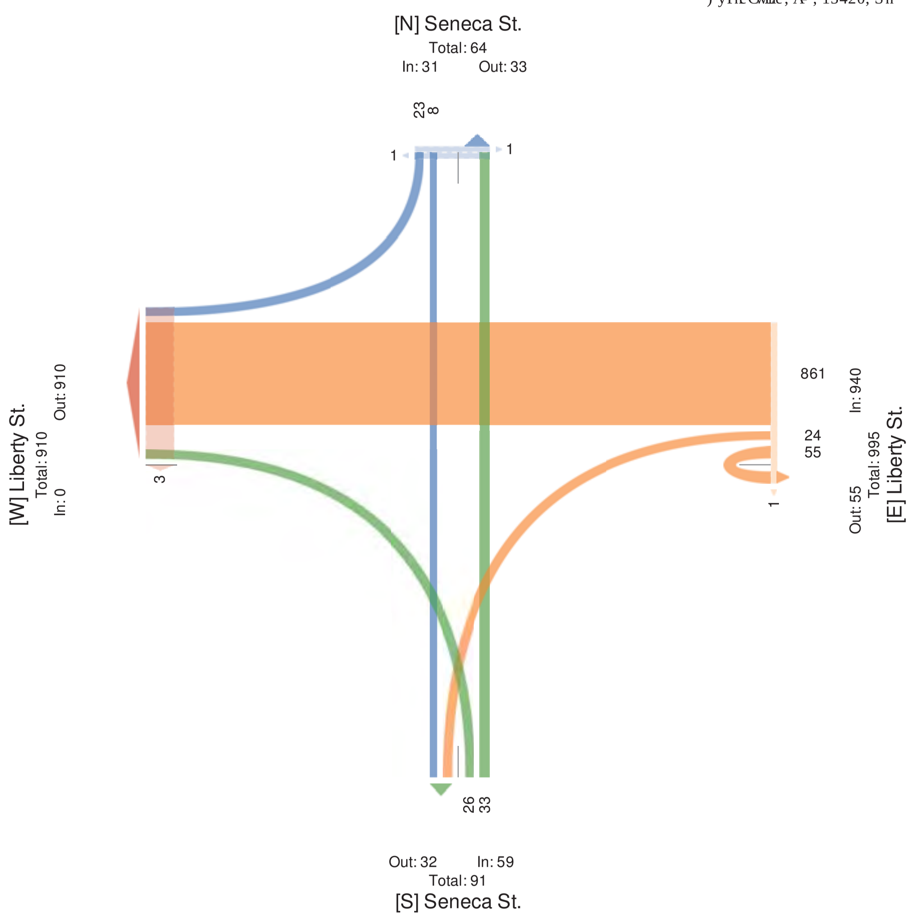
| s ei<br>I LterhlyT | neTerP nl9<br>NythgbyuTd | | | | | | | neTerP nl9<br>nyulgbyuTd | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| c lv e | s | c | o | S | oo | **App** | Aed* | s | c | o | S | oo | **App** | Aed* | **Int** |
| 20187 0. 718 ( D0 AM | 5 | 12 | 0 | 0 | 0 | **25** | 0 | 0 | 4 | . | 0 | 2 | **52** | 1 | **217** |
| ( D: AM | 1 | 8 | 0 | 0 | 0 | **4** | 0 | 0 | 0 | 1 | 0 | 0 | **5** | 1 | **228** |
| ( L40 AM | 6 | : | 0 | 0 | 0 | **55** | 0 | 0 | 1 | 4 | 0 | 4 | **1** | 0 | **280** |
| ( D: AM | 10 | 8 | 0 | 0 | 0 | **58** | 0 | 0 | ( | : | 0 | 2 | **55** | 0 | **278** |
| **3 otyT** | 26 | 44 | 0 | 0 | 0 | **o4** | 0 | 0 | 8 | 16 | 0 | . | **a5** | 2 | **50a0** |
| **l App 69rc** | ( ( 91% | : : 95% | 0% | 0% | 0% | **h** | 7 | 0% | 2: 98% | : 196% | 0% | 2296% | **h** | 7 | 7 |
| **l %6t9T** | 29. % | 492% | 0% | 0% | 0% | **o-1l** | 7 | 0% | 098% | 196% | 0% | 09. % | **a-0l** | 7 | 7 |
| **. PH** | 096: 0 | 09688 | 7 | 7 | 7 | **0-102** | 7 | 7 | 09. 00 | 09. . 1 | 7 | 09. 84 | **0-F7F** | 7 | 09520 |
| **Ligcts** | 26 | 42 | 0 | 0 | 0 | **o8** | 7 | 0 | 8 | 16 | 0 | . | **a5** | 7 | 554 |
| **l %igcts** | 100% | 5. 90% | 0% | 0% | 0% | **48-al** | 7 | 0% | 100% | 100% | 0% | 100% | **500l** | 7 | 569( % |
| **A tiruDted% urks%nd%ingTeUnit% urks** | 0 | 0 | 0 | 0 | 0 | **0** | 7 | 0 | 0 | 0 | 0 | 0 | **0** | 7 | 41 |
| **l %A tiruDted% urks%nd%ingTeUnit% urks** | 0% | 0% | 0% | 0% | 0% | **0l** | 7 | 0% | 0% | 0% | 0% | 0% | **0l** | 7 | 490% |
| **Buses** | 0 | 1 | 0 | 0 | 0 | **5** | 7 | 0 | 0 | 0 | 0 | 0 | **0** | 7 | ( |
| **l %Buses** | 0% | 490% | 0% | 0% | 0% | **5-1l** | 7 | 0% | 0% | 0% | 0% | 0% | **0l** | 7 | 09( % |
| **BiryrTes%n%69d** | 0 | 0 | 0 | 0 | 0 | **0** | 7 | 0 | 0 | 0 | 0 | 0 | **0** | 7 | 2 |
| **l %BiryrTes%n%69d** | 0% | 0% | 0% | 0% | 0% | **0l** | 7 | 0% | 0% | 0% | 0% | 0% | **0l** | 7 | 092% |
| AedeChtlPTC | 7 | 7 | 7 | 7 | 7 | 7 | 0 | 7 | 7 | 7 | 7 | 7 | 7 | 1 | |
| % AedeChtlPTC | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | : 090% | 7 |
| ULrBrleCyT ) tyCCRPla | 7 | 7 | 7 | 7 | 7 | 7 | 0 | 7 | 7 | 7 | 7 | 7 | 7 | 1 | |
| % ULrBrleCyT ) tyCCRPla | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | : 090% | 7 |

*AedeChtlPTCPTd ULrBrleCyT ) tyCCRPla9sDsefh, o DoLi gh, o o DoLi ghyTted, c Dc gtu, S DS 7c utT

## 17. Seneca and Liberty - TMC

Wed Jul 18, 2018
AM AePa k( AM 7: AM3
- ll ) lPCCeCls li ghC, - thlcrulPhed c turaCPTd nlTi le7STllc turaC, UuCeC, AedeChlPTC, UlcBrleC yT o yPd, UlcBrleCyT ) tyCCRPla3
- ll Mywev eThC
ml D ( 5108, syrPhlyTD( 49104: . 6, 7. : 9225811, nlle ) ydeDShlcP, NeR Yyta

Atywlded bBDc tl7nhPhe c tPffl
I PhP, mTr9
18( UPaet o yPd,
) yPheGwllle, A- , 15420, Sn






## 18 Seneca and Oriskany - TMC

Wed Jul 18, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549111, Location: 43.103023, -75.230079, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Oriskany St. | | | | | | | Oriskany St. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Eastbound | | | | | | | Westbound | | | | | | |
| Time | L | T | R | U | RR | App | Ped* | L | T | R | U | RR | App | Ped* |
| 2018-07-18 7:00AM | 9 | 140 | 0 | 0 | 0 | 157 | 0 | 0 | 0 | 0 | 14 | 0 | 15 | 1 |
| 7:15AM | 16 | 186 | 1 | 0 | 0 | 204 | 2 | 1 | 0 | 0 | 27 | 0 | 23 | 1 |
| 7:30AM | 14 | 212 | 1 | 0 | 0 | 229 | 0 | 0 | 0 | 0 | 31 | 0 | 41 | 0 |
| 7:45AM | 15 | 225 | 4 | 0 | 1 | 258 | 1 | 0 | 0 | 0 | 31 | 0 | 41 | 1 |
| Hourly Total | 54 | 763 | 6 | 0 | 1 | 325 | 3 | 1 | 0 | 0 | 103 | 0 | 105 | 3 |
| 8:00AM | 10 | 206 | 2 | 0 | 0 | 213 | 0 | 0 | 0 | 0 | 30 | 0 | 40 | 0 |
| 8:15AM | 22 | 186 | 0 | 0 | 0 | 203 | 0 | 0 | 0 | 0 | 23 | 0 | 24 | 0 |
| 8:30AM | 12 | 181 | 2 | 0 | 0 | 178 | 0 | 0 | 0 | 0 | 28 | 0 | 23 | 1 |
| 8:45AM | 10 | 183 | 1 | 0 | 0 | 175 | 0 | 0 | 0 | 0 | 19 | 0 | 17 | 0 |
| Hourly Total | 54 | 756 | 5 | 0 | 0 | 318 | 0 | 0 | 0 | 0 | 100 | 0 | 100 | 1 |
| 9:00AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:00PM | 7 | 240 | 1 | 0 | 0 | 253 | 1 | 0 | 0 | 0 | 14 | 0 | 15 | 0 |
| 4:15PM | 3 | 272 | 2 | 0 | 0 | 299 | 1 | 0 | 0 | 0 | 14 | 0 | 15 | 1 |
| 4:30PM | 3 | 278 | 0 | 0 | 0 | 231 | 1 | 1 | 0 | 0 | 14 | 0 | 18 | 0 |
| 4:45PM | 2 | 250 | 1 | 0 | 0 | 284 | 0 | 0 | 0 | 0 | 12 | 0 | 12 | 0 |
| Hourly Total | 15 | 1040 | 4 | 0 | 0 | 1087 | 3 | 1 | 0 | 0 | 54 | 0 | 88 | 1 |
| 5:00PM | 4 | 282 | 1 | 0 | 0 | 239 | 1 | 0 | 0 | 0 | 13 | 0 | 14 | 0 |
| 5:15PM | 4 | 269 | 1 | 0 | 0 | 295 | 1 | 0 | 0 | 0 | 17 | 0 | 19 | 0 |
| 5:30PM | 7 | 223 | 1 | 0 | 0 | 241 | 0 | 0 | 0 | 0 | 4 | 0 | 5 | 0 |
| 5:45PM | 3 | 179 | 1 | 0 | 0 | 134 | 0 | 0 | 0 | 0 | 13 | 0 | 14 | 0 |
| Hourly Total | 18 | 953 | 4 | 0 | 0 | 798 | 2 | 0 | 0 | 0 | 47 | 0 | 59 | 0 |
| 6:00PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **6 Tot a** | 141 | 3512 | 19 | 0 | 1 | **4l 94** | 8 | 2 | 0 | 0 | 304 | 0 | **40l** | 5 |
| **% ApprTt ch** | 3.8% | 95.6% | 0.5% | 0% | 0% | - | - | 0.7% | 0% | 0% | 99.3% | 0% | - | - |
| **% 6 Tot a** | 3.3% | 81.4% | 0.4% | 0% | 0% | **38.1%** | - | 0% | 0% | 0% | 7.0% | 0% | **9.1%** | - |
| **Lighos** | 139 | 3377 | 18 | 0 | 1 | **4848** | - | 0 | 0 | 0 | 294 | 0 | **275** | - |
| **% Lighos** | 98.6% | 96.2% | 94.7% | 0% | 100% | **7l .2%** | - | 0% | 0% | 0% | 96.7% | 0% | **7l .1%** | - |
| **Arcicuat œd 6 rucks t nd Singæ-Unio6 rucks** | 1 | 118 | 1 | 0 | 0 | **120** | - | 0 | 0 | 0 | 8 | 0 | **3** | - |
| **% Arcicuat œd 6 rucks t nd Singæ-Unio6 rucks** | 0.7% | 3.4% | 5.3% | 0% | 0% | **4.4%** | - | 0% | 0% | 0% | 2.6% | 0% | **2.l %** | - |
| **Buses** | 1 | 17 | 0 | 0 | 0 | **13** | - | 0 | 0 | 0 | 2 | 0 | **2** | - |
| **% Buses** | 0.7% | 0.5% | 0% | 0% | 0% | **0.8%** | - | 0% | 0% | 0% | 0.7% | 0% | **0.9%** | - |
| **Bicycæs Tn RTt d** | 0 | 0 | 0 | 0 | 0 | **0** | - | 2 | 0 | 0 | 0 | 0 | **2** | - |
| **% Bicycæs Tn RTt d** | 0% | 0% | 0% | 0% | 0% | **0%** | - | 100% | 0% | 0% | 0% | 0% | **0.9%** | - |
| Pedestrians | - | - | - | - | - | - | 6 | - | - | - | - | - | - | 5 |
| % Pedestrians | - | - | - | - | - | - | 75.0% | - | - | - | - | - | - | 100% |
| Bicycles on Crosswalk | - | - | - | - | - | - | 2 | - | - | - | - | - | - | 0 |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 25.0% | - | - | - | - | - | - | 0% |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

**18 Seneca and Oriskany - TMC**
Wed Jul 18, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549111, Location: 43.103023, -75.230079, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

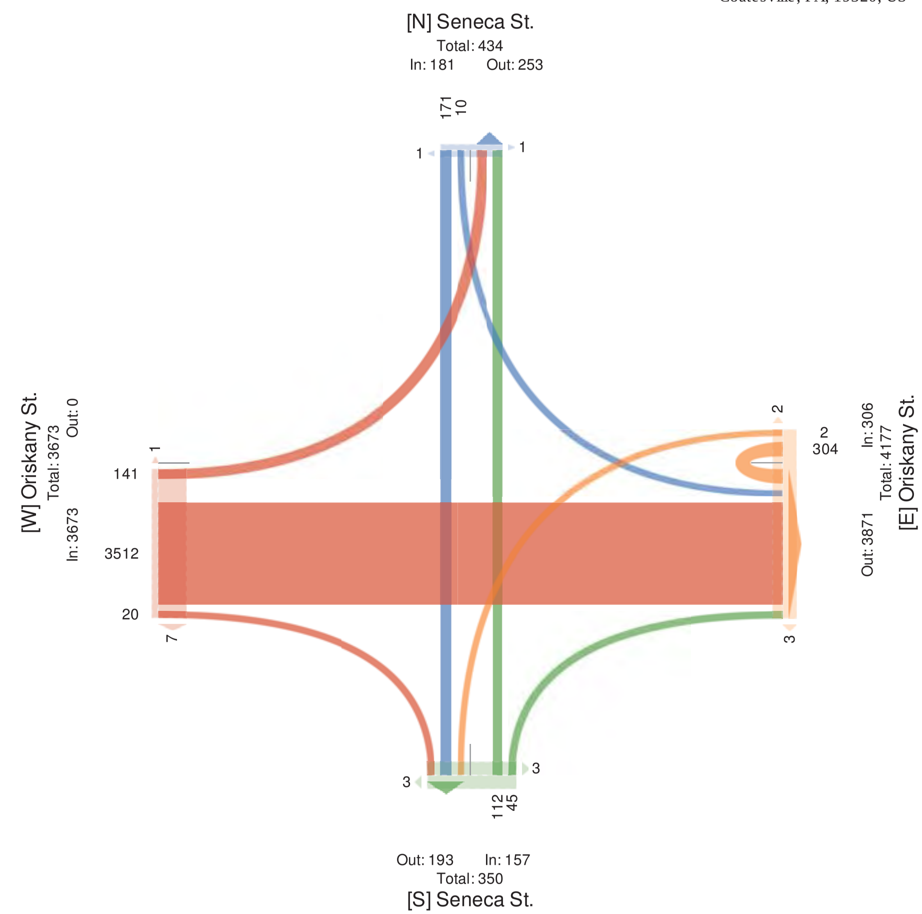
| Leg | Seneca St. | | | | | | | Seneca St. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Northbound | | | | | | | Southbound | | | | | | | |
| Time | L | T | R | U | RR | App | Ped* | L | T | R | U | RR | App | Ped* | Int |
| 2018-07-18 7:00AM | 0 | 5 | 0 | 0 | 1 | 1 | 1 | 0 | 8 | 0 | 0 | 0 | 6 | 0 | 288 |
| 7:15AM | 0 | 3 | 0 | 0 | 0 | 5 | 2 | 0 | 12 | 0 | 0 | 0 | 24 | 0 | 431 |
| 7:30AM | 0 | 2 | 0 | 0 | 1 | 5 | 0 | 0 | 13 | 0 | 0 | 0 | 25 | 0 | 483 |
| 7:45AM | 0 | 6 | 2 | 0 | 1 | 9 | 0 | 0 | 17 | 0 | 0 | 0 | 28 | 0 | 574 |
| Hourly Total | 0 | 16 | 2 | 0 | 3 | 42 | 3 | 0 | 50 | 0 | 0 | 0 | 07 | 0 | 999 |
| 8:00AM | 0 | 5 | 2 | 0 | 3 | 27 | 0 | 0 | 17 | 0 | 0 | 0 | 28 | 0 | 480 |
| 8:15AM | 0 | 5 | 1 | 0 | 1 | 8 | 0 | 1 | 22 | 0 | 0 | 0 | 45 | 0 | 412 |
| 8:30AM | 0 | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 28 | 0 | 430 |
| 8:45AM | 0 | 10 | 1 | 0 | 0 | 22 | 0 | 1 | 13 | 0 | 0 | 0 | 23 | 2 | 456 |
| Hourly Total | 0 | 24 | 4 | 0 | 5 | 55 | 0 | 2 | 69 | 0 | 0 | 0 | 82 | 2 | 2729 |
| 9:00AM | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 7 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 7 |
| 4:00PM | 0 | 14 | 1 | 0 | 4 | 29 | 0 | 2 | 7 | 0 | 0 | 0 | 9 | 0 | 497 |
| 4:15PM | 0 | 5 | 2 | 0 | 0 | 8 | 1 | 2 | 4 | 0 | 0 | 0 | 1 | 0 | 573 |
| 4:30PM | 0 | 8 | 6 | 0 | 4 | 26 | 0 | 1 | 7 | 0 | 0 | 0 | 6 | 0 | 544 |
| 4:45PM | 0 | 17 | 1 | 0 | 1 | 29 | 0 | 0 | 10 | 0 | 0 | 0 | 27 | 0 | 493 |
| Hourly Total | 0 | 44 | 10 | 0 | 9 | 15 | 1 | 5 | 28 | 0 | 0 | 0 | 55 | 0 | 2427 |
| 5:00PM | 0 | 8 | 2 | 0 | 1 | 22 | 2 | 0 | 7 | 0 | 0 | 0 | 8 | 0 | 526 |
| 5:15PM | 0 | 4 | 0 | 0 | 3 | 8 | 0 | 1 | 6 | 0 | 0 | 0 | 8 | 0 | 570 |
| 5:30PM | 0 | 11 | 2 | 0 | 1 | 23 | 0 | 1 | 4 | 0 | 0 | 0 | 0 | 0 | 403 |
| 5:45PM | 0 | 5 | 2 | 0 | 1 | 6 | 0 | 1 | 7 | 0 | 0 | 0 | 6 | 0 | 424 |
| Hourly Total | 0 | 28 | 6 | 0 | 6 | 37 | 2 | 3 | 24 | 0 | 0 | 0 | 48 | 0 | 2769 |
| 6:00PM | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 7 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 7 |
| **Total** | 0 | 112 | 22 | 0 | 23 | **208** | 6 | 10 | 171 | 0 | 0 | 0 | **262** | 2 | **3528** |
| **% Approach** | 0% | 71.3% | 14.0% | 0% | 14.6% | - | - | 5.5% | 94.5% | 0% | 0% | 0% | - | - | - |
| **% Total** | 0% | 2.6% | 0.5% | 0% | 0.5% | **5.1%** | - | 0.2% | 4.0% | 0% | 0% | 0% | **3.4%** | - | - |
| **Lights** | 0 | 107 | 21 | 0 | 22 | **207** | - | 9 | 160 | 0 | 0 | 0 | **219** | - | 4148 |
| **% Lights** | 0% | 95.5% | 95.5% | 0% | 95.7% | **90.0%** | - | 90.0% | 93.6% | 0% | 0% | 0% | **95.3%** | - | 96.1% |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 3 | 1 | 0 | 1 | **0** | - | 0 | 6 | 0 | 0 | 0 | **1** | - | 139 |
| **% Articulated Trucks and Single-Unit Trucks** | 0% | 2.7% | 4.5% | 0% | 4.3% | **5.4%** | - | 0% | 3.5% | 0% | 0% | 0% | **5.5%** | - | 3.2% |
| **Buses** | 0 | 0 | 0 | 0 | 0 | **7** | - | 1 | 4 | 0 | 0 | 0 | **0** | - | 25 |
| **% Buses** | 0% | 0% | 0% | 0% | 0% | **7%** | - | 10.0% | 2.3% | 0% | 0% | 0% | **4.6%** | - | 0.6% |
| **Bicycles on Road** | 0 | 2 | 0 | 0 | 0 | **4** | - | 0 | 1 | 0 | 0 | 0 | **2** | - | 5 |
| **% Bicycles on Road** | 0% | 1.8% | 0% | 0% | 0% | **2.5%** | - | 0% | 0.6% | 0% | 0% | 0% | **7.1%** | - | 0.1% |
| Pedestrians | - | - | - | - | - | - | 5 | - | - | - | - | - | - | 2 | |
| % Pedestrians | - | - | - | - | - | - | 83.3% | - | - | - | - | - | - | 100% | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 16.7% | - | - | - | - | - | - | 0% | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn



**18 Seneca and Oriskany - TMC**
Wed Jul 18, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549111, Location: 43.103023, -75.230079, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US



**18 Seneca and Oriskany - TMC**
Wed Jul 18, 2018
AM Peak (7:30AM - 8:30AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549111, Location: 43.103023, -75.230079, Site Code: Utica, 6ew Nork

Provided Yy: Tri-State Trabic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | f riskany St. | | | | | | | f riskany St. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | OastYound | | | | | | | WestYound | | | | | | |
| Time | L | T | R | U | RR | App | PedE | L | T | R | U | RR | App | PedE |
| 2018-07-18 7:30AM | 14 | 212 | 1 | 0 | 0 | **224** | 0 | 0 | 0 | 0 | 31 | 0 | **03** | 0 |
| 7:45AM | 15 | 225 | 4 | 0 | 1 | **279** | 1 | 0 | 0 | 0 | 31 | 0 | **03** | 1 |
| 8:00AM | 10 | 20* | 2 | 0 | 0 | **231** | 0 | 0 | 0 | 0 | 30 | 0 | **05** | 0 |
| 8:15AM | 22 | 18* | 0 | 0 | 0 | **251** | 0 | 0 | 0 | 0 | 23 | 0 | **20** | 0 |
| **6 Tα a** | *1 | 829 | 7 | 0 | 1 | **1l 1** | 1 | 0 | 0 | 0 | 115 | 0 | **339** | 1 |
| **% ApprTt ch** | *.8% | 92.3% | 0.8% | 0% | 0.1% | - | - | 0% | 0% | 0% | 100% | 0% | - | - |
| **% 6 Tα a** | 5.5% | 74.*% | 0.*% | 0% | 0.1% | **158 1%** | - | 0% | 0% | 0% | 10.3% | 0% | **358 0%** | - |
| **. PH** | 0.*93 | 0.921 | 0.438 | - | 0.250 | **58 3F** | - | - | - | - | 0.927 | - | **58 24** | - |
| **Lighαs** | *1 | 785 | * | 0 | 1 | **190** | - | 0 | 0 | 0 | 115 | 0 | **339** | - |
| **% Lighαs** | 100% | 94.7% | 85.7% | 0% | 100% | **l 985%** | - | 0% | 0% | 0% | 100% | 0% | **355%** | - |
| **Ardcuat œd 6 rucks t nd Singæ-Unio6 rucks** | 0 | 37 | 1 | 0 | 0 | **01** | - | 0 | 0 | 0 | 0 | 0 | **5** | - |
| **% Ardcuat œd 6 rucks t nd Singæ-Unio6 rucks** | 0% | 4.5% | 14.3% | 0% | 0% | **7 82%** | - | 0% | 0% | 0% | 0% | 0% | **5%** | - |
| **Buses** | 0 | 7 | 0 | 0 | 0 | **4** | - | 0 | 0 | 0 | 0 | 0 | **5** | - |
| **% Buses** | 0% | 0.8% | 0% | 0% | 0% | **58 1%** | - | 0% | 0% | 0% | 0% | 0% | **5%** | - |
| **Bicycæs Tn RTt d** | 0 | 0 | 0 | 0 | 0 | **5** | - | 0 | 0 | 0 | 0 | 0 | **5** | - |
| **% Bicycæs Tn RTt d** | 0% | 0% | 0% | 0% | 0% | **5%** | - | 0% | 0% | 0% | 0% | 0% | **5%** | - |
| Pedestrians | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 1 |
| % Pedestrians | - | - | - | - | - | - | 0% | - | - | - | - | - | - | 100% |
| Bicycles on Crosswalk | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 0 |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 100% | - | - | - | - | - | - | 0% |

E Pedestrians and Bicycles on Crosswalk. L: Lebt, R: Right, RR: Right on red, T: Thru, U: U-Turn



**18 Seneca and Oriskany - TMC**
Wed Jul 18, 2018
AM Peak (7:30AM - 8:30AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549111, Location: 43.103023, -75.230079, Site Code: Utica, 6ew Nork

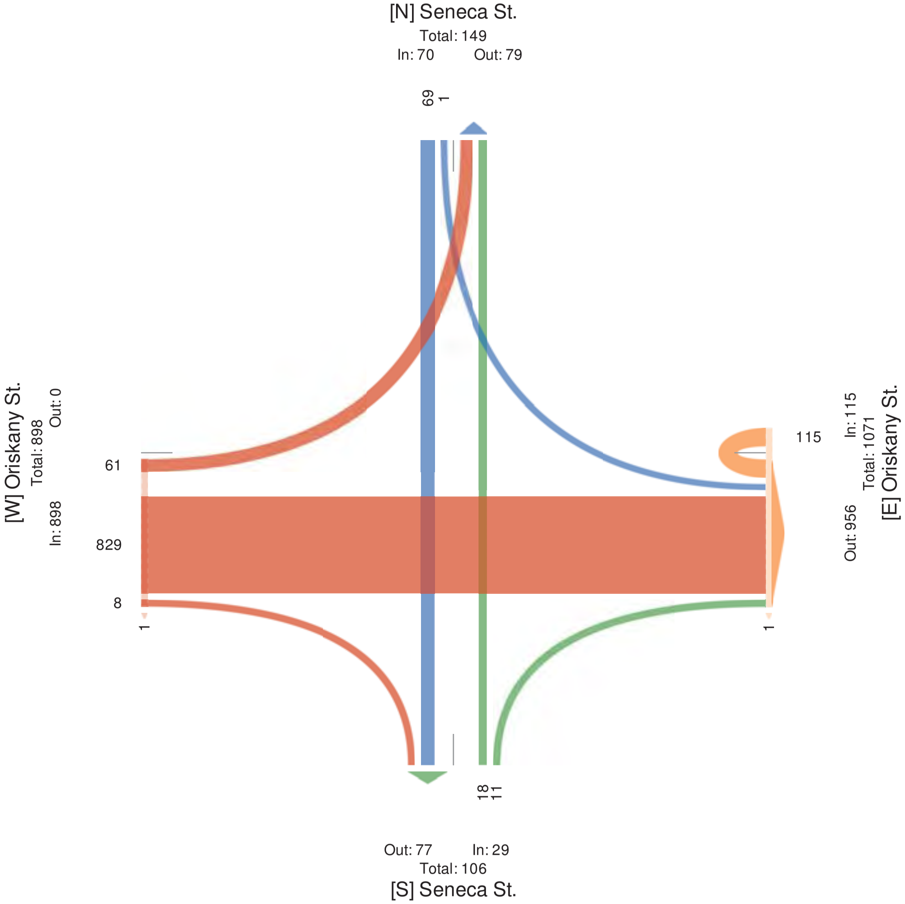
Provided Yy: Tri-State Trabic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Seneca St. | | | | | | | Seneca St. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | 6orthYound | | | | | | | SouthYound | | | | | | | |
| Time | L | T | R | U | RR | App | Pedf | L | T | R | U | RR | App | Pedf | **Int** |
| 2018-07-18 7:30AM | 0 | 2 | 0 | 0 | 1 | **3** | 0 | 0 | 13 | 0 | 0 | 0 | **13** | 0 | **274** |
| 7:45AM | 0 | * | 2 | 0 | 1 | **9** | 0 | 0 | 17 | 0 | 0 | 0 | **17** | 0 | **302** |
| 8:00AM | 0 | 5 | 2 | 0 | 3 | **10** | 0 | 0 | 17 | 0 | 0 | 0 | **17** | 0 | **275** |
| 8:15AM | 0 | 5 | 1 | 0 | 1 | **7** | 0 | 1 | 22 | 0 | 0 | 0 | **23** | 0 | **261** |
| **Total** | 0 | 18 | 5 | 0 | * | **29** | 0 | 1 | *9 | 0 | 0 | 0 | **70** | 0 | **1112** |
| **% Approach** | 0% | *2.1% | 17.2% | 0% | 20.7% | - | - | 1.4% | 98.*% | 0% | 0% | 0% | - | - | - |
| **% Total** | 0% | 1.*% | 0.4% | 0% | 0.5% | **2.6%** | - | 0.1% | *.2% | 0% | 0% | 0% | **6.3%** | - | - |
| **PHF** | - | 0.750 | 0.*25 | - | 0.500 | **0.725** | - | 0.250 | 0.784 | - | - | - | **0.761** | - | 0.921 |
| **Lights** | 0 | 1* | 5 | 0 | * | **27** | - | 1 | *5 | 0 | 0 | 0 | **66** | - | 10*1 |
| **% Lights** | 0% | 88.9% | 100% | 0% | 100% | **93.1%** | - | 100% | 94.2% | 0% | 0% | 0% | **94.3%** | - | 95.4% |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 1 | 0 | 0 | 0 | **1** | - | 0 | 2 | 0 | 0 | 0 | **2** | - | 41 |
| **% Articulated Trucks and Single-Unit Trucks** | 0% | 5.*% | 0% | 0% | 0% | **3.4%** | - | 0% | 2.9% | 0% | 0% | 0% | **2.9%** | - | 3.7% |
| **Buses** | 0 | 0 | 0 | 0 | 0 | **0** | - | 0 | 2 | 0 | 0 | 0 | **2** | - | 9 |
| **% Buses** | 0% | 0% | 0% | 0% | 0% | **0%** | - | 0% | 2.9% | 0% | 0% | 0% | **2.9%** | - | 0.8% |
| **Bicycles on Road** | 0 | 1 | 0 | 0 | 0 | **1** | - | 0 | 0 | 0 | 0 | 0 | **0** | - | 1 |
| **% Bicycles on Road** | 0% | 5.*% | 0% | 0% | 0% | **3.4%** | - | 0% | 0% | 0% | 0% | 0% | **0%** | - | 0.1% |
| Pedestrians | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

f Pedestrians and Bicycles on Crosswalk. L: Lebt, R: Right, RR: Right on red, T: Thru, U: U-Turn

**18 Seneca and Oriskany - TMC**
Wed Jul 18, 2018
P M a ek( 4- 5) 0P M A85) 0P MC
P ll s lkLLeL 4i ght rL, P crgTulkred n cuT(LkSd UgShle ABSgr n cuT(L, yuLeL, aedeLrcgkSL, ygToTleL
RS wRkd, ygToTleL RS s cRLLv kl(C
P ll MRme I e SrL
D 593. 111, i RTkrgRS53) 710) 02), A972) 00- . , Uge s Rde 5BrgTk, Nev YRc(

acRmgled bo5n cgAUrkre n ckffgT
: krk, DST7
183 y k(e c wRkd,
s RkreLmgle, aP, 1. ) 20, BU






**18 Seneca and Oriskany - TMC**
Wed Jul 18, 2018
Forced Peak (7:45AM - 8:45AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549111, Location: 43.103023, -75.230079, Site Code: Utica, 6ew Nork

Provided Yy: Tri-State Trabic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | f riskany St. | | | | | | | f riskany St. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | OastYound | | | | | | | WestYound | | | | | | |
| Time | L | T | R | U | RR | App | PedE | L | T | R | U | RR | App | PedE |
| 2018-07-18 7:45AM | 15 | 225 | 4 | 0 | 1 | **240** | 1 | 0 | 0 | 0 | 31 | 0 | **37** | 1 |
| 8:00AM | 10 | 20* | 2 | 0 | 0 | **279** | 0 | 0 | 0 | 0 | 30 | 0 | **31** | 0 |
| 8:15AM | 22 | 18* | 0 | 0 | 0 | **219** | 0 | 0 | 0 | 0 | 23 | 0 | **23** | 0 |
| 8:30AM | 12 | 181 | 2 | 0 | 0 | **750** | 0 | 0 | 0 | 0 | 28 | 0 | **29** | 1 |
| **6 Tot a** | 59 | 798 | 8 | 0 | 1 | **911** | 1 | 0 | 0 | 0 | 112 | 0 | **772** | 2 |
| **% ApprTt ch** | *.8% | 92.1% | 0.9% | 0% | 0.1% | - | - | 0% | 0% | 0% | 100% | 0% | - | - |
| **% 6 Tot a** | 5.4% | 73.7% | 0.7% | 0% | 0.1% | **918l%** | - | 0% | 0% | 0% | 10.3% | 0% | **718l%** | - |
| **. PH** | 0.*70 | 0.887 | 0.500 | - | 0.250 | **18994** | - | - | - | - | 0.903 | - | **18513** | - |
| **Fli hog** | 59 | 745 | 8 | 0 | 1 | **973** | - | 0 | 0 | 0 | 109 | 0 | **715** | - |
| **% Fli hog** | 100% | 93.4% | 100% | 0% | 100% | **5385%** | - | 0% | 0% | 0% | 97.3% | 0% | **5s83%** | - |
| **Ardcuat ced 6 ruckg t nd SInai ae-UnIo6 ruckg** | 0 | 44 | 0 | 0 | 0 | **44** | - | 0 | 0 | 0 | 3 | 0 | **3** | - |
| **% Ardcuat ced 6 ruckg t nd SInai ae-UnIo6 ruckg** | 0% | 5.5% | 0% | 0% | 0% | **087%** | - | 0% | 0% | 0% | 2.7% | 0% | **28s%** | - |
| **Bugeg** | 0 | 9 | 0 | 0 | 0 | **5** | - | 0 | 0 | 0 | 0 | 0 | **1** | - |
| **% Bugeg** | 0% | 1.1% | 0% | 0% | 0% | **781%** | - | 0% | 0% | 0% | 0% | 0% | **1%** | - |
| **BIcycaeg Tn RTt d** | 0 | 0 | 0 | 0 | 0 | **1** | - | 0 | 0 | 0 | 0 | 0 | **1** | - |
| **% BIcycaeg Tn RTt d** | 0% | 0% | 0% | 0% | 0% | **1%** | - | 0% | 0% | 0% | 0% | 0% | **1%** | - |
| Pedestrians | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 2 |
| % Pedestrians | - | - | - | - | - | - | 0% | - | - | - | - | - | - | 100% |
| Bicycles on Crosswalk | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 0 |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 100% | - | - | - | - | - | - | 0% |

EPedestrians and Bicycles on Crosswalk. L: Lebt, R: Right, RR: Right on red, T: Thru, U: U-Turn

**18 Seneca and Oriskany - TMC**
Wed Jul 18, 2018
Forced Peak (7:45AM - 8:45AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549111, Location: 43.103023, -75.230079, Site Code: Utica, 6 ew Nork

Provided Yy: Tri-State Trabic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

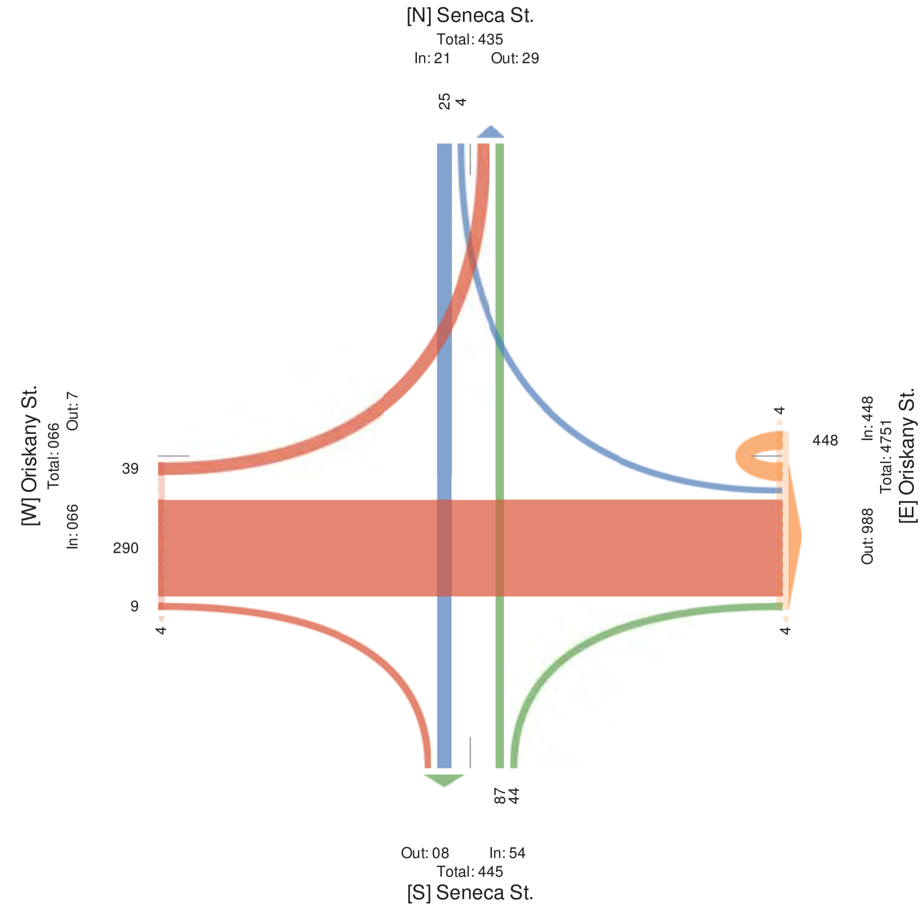
| Leg | Seneca St. | | | | | | | Seneca St. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | 6 orth Yound | | | | | | | South Yound | | | | | | | |
| Time | L | T | R | U | RR | App | Pedf | L | T | R | U | RR | App | Pedf | Int |
| 2018-07-18 7:45AM | 0 | * | 2 | 0 | 1 | **2** | 0 | 0 | 17 | 0 | 0 | 0 | **51** | 0 | **748** |
| 8:00AM | 0 | 5 | 2 | 0 | 3 | **54** | 0 | 0 | 17 | 0 | 0 | 0 | **51** | 0 | **810** |
| 8:15AM | 0 | 5 | 1 | 0 | 1 | **1** | 0 | 1 | 22 | 0 | 0 | 0 | **87** | 0 | **835** |
| 8:30AM | 0 | 4 | 0 | 0 | 1 | **0** | 0 | 0 | 17 | 0 | 0 | 0 | **51** | 0 | **860** |
| **9 Ttoa** | 0 | 20 | 5 | 0 | * | **75** | 0 | 1 | 73 | 0 | 0 | 0 | **16** | 0 | **541 7** |
| **% Appr ıoch** | 0% | *4.5% | 1*.1% | 0% | 19.4% | - | - | 1.4% | 98.*% | 0% | 0% | 0% | - | - | - |
| **% 9 Ttoa** | 0% | 1.8% | 0.5% | 0% | 0.*% | **8.2%** | - | 0.1% | *.7% | 0% | 0% | 0% | **3.1 %** | - | - |
| **PHF** | - | 0.833 | 0.*25 | - | 0.500 | **4.110** | - | 0.250 | 0.830 | - | - | - | **4.1 46** | - | 0.897 |
| **Lights** | 0 | 18 | 5 | 0 | * | **82** | - | 1 | *9 | 0 | 0 | 0 | **14** | - | 1021 |
| **% Lights** | 0% | 90.0% | 100% | 0% | 100% | **27.0%** | - | 100% | 94.5% | 0% | 0% | 0% | **26.3%** | - | 94.3% |
| **Articuaoted 9 rucks ond Singæ-Unit 9 rucks** | 0 | 1 | 0 | 0 | 0 | **5** | - | 0 | 3 | 0 | 0 | 0 | **7** | - | 51 |
| **% Articuaoted 9 rucks ond Singæ-Unit 9 rucks** | 0% | 5.0% | 0% | 0% | 0% | **7.8%** | - | 0% | 4.1% | 0% | 0% | 0% | **6.5%** | - | 4.7% |
| **Buses** | 0 | 0 | 0 | 0 | 0 | **4** | - | 0 | 1 | 0 | 0 | 0 | **5** | - | 10 |
| **% Buses** | 0% | 0% | 0% | 0% | 0% | **4%** | - | 0% | 1.4% | 0% | 0% | 0% | **5.6 %** | - | 0.9% |
| **Bicycæs Tn RTod** | 0 | 1 | 0 | 0 | 0 | **5** | - | 0 | 0 | 0 | 0 | 0 | **4** | - | 1 |
| **% Bicycæs Tn RTod** | 0% | 5.0% | 0% | 0% | 0% | **7.8%** | - | 0% | 0% | 0% | 0% | 0% | **4%** | - | 0.1% |
| Pedestrians | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

[f] Pedestrians and Bicycles on Crosswalk. L: Lebt, R: Right, RR: Right on red, T: Thru, U: U-Turn



**18 Seneca and Oriskany - TMC**
Wed Jul 18, 2018
Forced Peak (7:45AM - 8:45AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549111, Location: 43.103023, -75.230079, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US






Revised A - 101

## 18 Seneca and Oriskany - TMC

Wed Jul 18, 2018
PM Peak (4-50PM ) O50PMv ) r Heoall Peak ACuo
s ll Llaiiei (ght cTr, s oThulaTed Sounki aUd BlUt le)y UhTSounki, Ruiei, Pedei TohaUi, Rlnwnlei CUmCad, Rlnwnlei CULoCiiI alkv
s ll MCHeDeUTr
:9 - O43111, gCnaTiCU- 45.105025, )7O.250073, BhTe LCde - y Tna, 6 eI NCok

PoCHded Yw- S oh)BTaTe S oabbn
9 aTa, : Un.
184 RakeomCad,
LCaTei Hille, Ps , 13520, y B

| get | r ohi kaUwBT. | | | | | | | r ohi kaUwBT. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 hoenTiCU | f ai TYCuUd | | | | | | | Wei TYCuUd | | | | | | |
| ShDe | g | S | m | y | mm | App | PedE | g | S | m | y | mm | App | PedE |
| 2018)07)18 4-50PM | 5 | 278 | 0 | 0 | 0 | 240 | 1 | 1 | 0 | 0 | 14 | 0 | 03 | 0 |
| 4-4OPM | 2 | 2O0 | 1 | 0 | 0 | 237 | 0 | 0 | 0 | 0 | 12 | 0 | 02 | 0 |
| O-00PM | 4 | 282 | 1 | 0 | 0 | 249 | 1 | 0 | 0 | 0 | 15 | 0 | 07 | 0 |
| O-1OPM | 4 | 2*3 | 1 | 0 | 0 | 291 | 1 | 0 | 0 | 0 | 17 | 0 | 09 | 0 |
| 5 6Tbt | 15 | 1073 | 5 | 0 | 0 | 0al 3 | 5 | 1 | 0 | 0 | O* | 0 | 39 | 0 |
| % Appr6och | 1.2% | 38.O% | 0.5% | 0% | 0% | - | ) | 1.8% | 0% | 0% | 38.2% | 0% | - | ) |
| % 5 6Tbt | 1.0% | 87.1% | 0.2% | 0% | 0% | 448l % | ) | 0.1% | 0% | 0% | 4.O% | 0% | 18. % | ) |
| PHF | 0.815 | 0.3O7 | 0.7O0 | ) | ) | a8l 31 | ) | 0.2O0 | ) | ) | 0.824 | ) | a8474 | ) |
| LighTs | 15 | 10*2 | 5 | 0 | 0 | 0a94 | ) | 0 | 0 | 0 | O4 | 0 | 31 | ) |
| % LighTs | 100% | 38.4% | 100% | 0% | 0% | l 48l % | ) | 0% | 0% | 0% | 3*.4% | 0% | l 189% | ) |
| ArTcutoTed 5 rucks ond Singte-UniT5 rucks | 0 | 1* | 0 | 0 | 0 | 0. | ) | 0 | 0 | 0 | 1 | 0 | 0 | ) |
| % ArTcutoTed 5 rucks ond Singte-UniT5 rucks | 0% | 1.O% | 0% | 0% | 0% | 083 % | ) | 0% | 0% | 0% | 1.8% | 0% | 084 % | ) |
| Buses | 0 | 1 | 0 | 0 | 0 | 0 | ) | 0 | 0 | 0 | 1 | 0 | 0 | ) |
| % Buses | 0% | 0.1% | 0% | 0% | 0% | a80% | ) | 0% | 0% | 0% | 1.8% | 0% | 084 % | ) |
| Bicyctes 6n R6od | 0 | 0 | 0 | 0 | 0 | a | ) | 1 | 0 | 0 | 0 | 0 | 0 | ) |
| % Bicyctes 6n R6od | 0% | 0% | 0% | 0% | 0% | a % | ) | 100% | 0% | 0% | 0% | 0% | 084 % | ) |
| Pedei TohaUi | ) | ) | ) | ) | ) | ) | 5 | ) | ) | ) | ) | ) | ) | 0 |
| % Pedei TohaUi | ) | ) | ) | ) | ) | ) | 100% | ) | ) | ) | ) | ) | ) | ) |
| Rlnwnlei CULoCiiI alk | ) | ) | ) | ) | ) | ) | 0 | ) | ) | ) | ) | ) | ) | 0 |
| % Rlnwnlei CULoCiiI alk | ) | ) | ) | ) | ) | ) | 0% | ) | ) | ) | ) | ) | ) | ) |

[E] Pedei TohaUi aUd Rlnwnlei CULoCiiI alk. g - gebT, m - mht cT, mm - mht cTCUoed, S - S cou, y - y )SuoU



## 18 Seneca and Oriskany - TMC

Wed Jul 18, 2018
PM Peak (4:30PM - 5:30PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549111, Location: 43.103023, -65.230069, Site Code: Utica, 7ew Nork

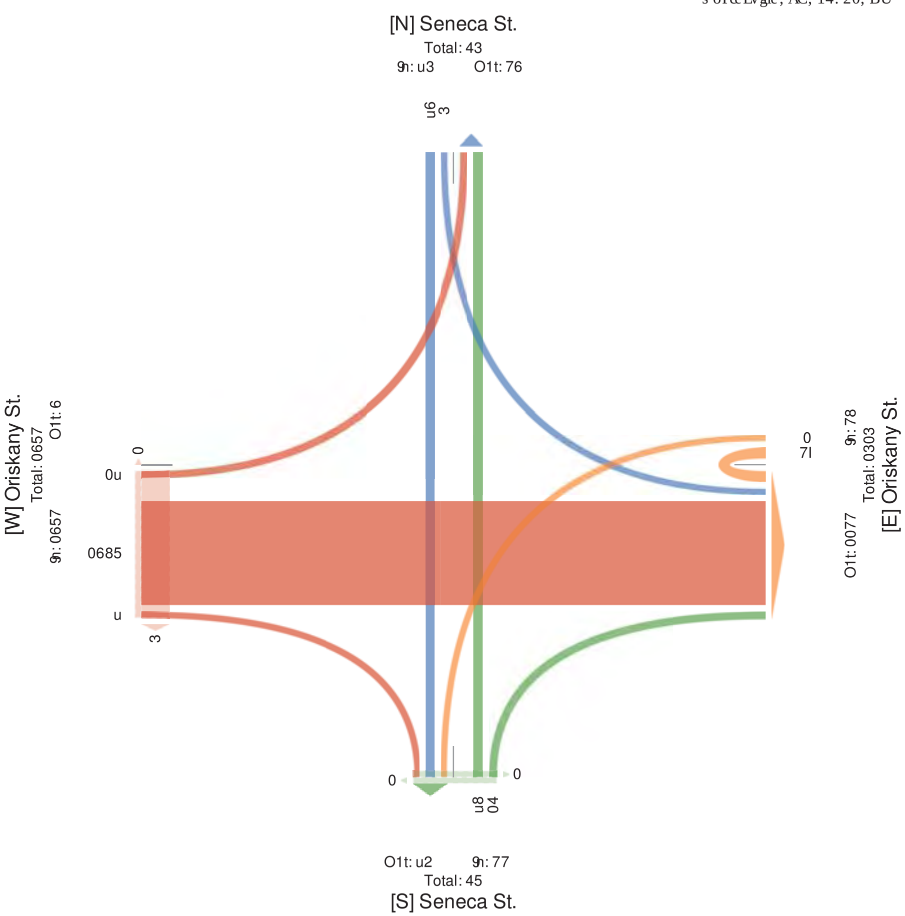
Provided Yy: Tri-State Trabbic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Seneca St. | | | | | | | Seneca St. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | 7orthYound | | | | | | | SouthYound | | | | | | | |
| Time | L | T | R | U | RR | App | Pedf | L | T | R | U | RR | App | Pedf | Int |
| 2018-06-18 4:30PM | 0 | 8 | * | 0 | 4 | 25 | 0 | 1 | 6 | 0 | 0 | 0 | 5 | 0 | 177 |
| 4:45PM | 0 | 16 | 1 | 0 | 1 | 24 | 0 | 0 | 10 | 0 | 0 | 0 | 28 | 0 | 740 |
| 5:00PM | 0 | 8 | 2 | 0 | 1 | 22 | 2 | 0 | 6 | 0 | 0 | 0 | 3 | 0 | 125 |
| 5:15PM | 0 | 4 | 0 | 0 | 3 | 3 | 0 | 1 | * | 0 | 0 | 0 | 3 | 0 | 186 |
| 9 Ttoa | 0 | 36 | 9 | 0 | 9 | 66 | 2 | 2 | 30 | 0 | 0 | 0 | 17 | 0 | 2714 |
| l %App Torc | 0% | *6.3% | 1*.4% | 0% | 1*.4% | h | - | *.3% | 93.8% | 0% | 0% | 0% | h | - | - |
| l % Ttoa | 0% | 3.0% | 0.6% | 0% | 0.6% | 0-0l | - | 0.2% | 2.4% | 0% | 0% | 0% | 7-. l | - | - |
| PHF | - | 0.544 | 0.365 | - | 0.5*3 | 8-370 | - | 0.500 | 0.650 | - | - | - | 8-588 | - | 0.9*2 |
| Ligcts | 0 | 3* | 9 | 0 | 9 | 60 | - | 2 | 29 | 0 | 0 | 0 | 12 | - | 1216 |
| l %Ligcts | 0% | 96.3% | 100% | 0% | 100% | 45-7l | - | 100% | 9*.6% | 0% | 0% | 0% | 4. -4l | - | 98.2% |
| A tiruated% urks%nd%ingaeUnit% urks | 0 | 1 | 0 | 0 | 0 | 2 | - | 0 | 0 | 0 | 0 | 0 | 8 | - | 18 |
| l %A tiruated% urks%nd%ingaeUnit% urks | 0% | 2.6% | 0% | 0% | 0% | 2-5l | - | 0% | 0% | 0% | 0% | 0% | 8l | - | 1.5% |
| Buses | 0 | 0 | 0 | 0 | 0 | 8 | - | 0 | 1 | 0 | 0 | 0 | 2 | - | 3 |
| l %Buses | 0% | 0% | 0% | 0% | 0% | 8l | - | 0% | 3.3% | 0% | 0% | 0% | 1-2l | - | 0.2% |
| Biryraes%n%RTod | 0 | 0 | 0 | 0 | 0 | 8 | - | 0 | 0 | 0 | 0 | 0 | 8 | - | 1 |
| l %Biryraes%n%RTod | 0% | 0% | 0% | 0% | 0% | 8l | - | 0% | 0% | 0% | 0% | 0% | 8l | - | 0.1% |
| Pedestrians | - | - | - | - | - | - | 2 | - | - | - | - | - | - | 0 | |
| % Pedestrians | - | - | - | - | - | - | 100% | - | - | - | - | - | - | - | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 0% | - | - | - | - | - | - | - | - |

[f] Pedestrians and Bicycles on Crosswalk. L: Lebt, R: Right, RR: Right on red, T: Thru, U: U-Turn

**18 Seneca and Oriskany - TMC**
Wed Jul 18, 2018
AM AePa k( 7 0AM 3- 7 0AM) 3OverPll AePa Hour
Cll s lPLLeL ki ght d., CrgTulPed n ruTaL PSd UgShle 3BSgn ruTaL, yuLeL, Aede LrgPSL, ygTRTleL oS woPd, ygTRTleL oS s roLLmPla)
Cll MoveI eSdL
D5 7- ( 4111, i oTPgoS7( : 910: 02: , 3 - 92: 00. 4, Uge s ode 7BgTP, Nem Yora

Arovgled bR7n rgUcPce n rPffgT
5 PeP, DST9
18( y Paer woPd,
s oPeLvglle, AC, 14: 20, BU






**18 Seneca and Oriskany - TMC**
Wed Jul 18, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549111, Location: 43.103023, -75.230079, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Oriskany St. | | | | | | | Oriskany St. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Eastbound | | | | | | | Westbound | | | | | | |
| Time | L | T | R | U | RR | App | Ped* | L | T | R | U | RR | App | Ped* |
| 2018-07-18 7:00AM | 9 | 140 | 0 | 0 | 0 | 157 | 0 | 0 | 0 | 0 | 14 | 0 | 15 | 1 |
| 7:15AM | 16 | 186 | 1 | 0 | 0 | 204 | 2 | 1 | 0 | 0 | 27 | 0 | 23 | 1 |
| 7:30AM | 14 | 212 | 1 | 0 | 0 | 229 | 0 | 0 | 0 | 0 | 31 | 0 | 41 | 0 |
| 7:45AM | 15 | 225 | 4 | 0 | 1 | 258 | 1 | 0 | 0 | 0 | 31 | 0 | 41 | 1 |
| Hourly Total | 54 | 763 | 6 | 0 | 1 | 325 | 3 | 1 | 0 | 0 | 103 | 0 | 105 | 3 |
| 8:00AM | 10 | 206 | 2 | 0 | 0 | 213 | 0 | 0 | 0 | 0 | 30 | 0 | 40 | 0 |
| 8:15AM | 22 | 186 | 0 | 0 | 0 | 203 | 0 | 0 | 0 | 0 | 23 | 0 | 24 | 0 |
| 8:30AM | 12 | 181 | 2 | 0 | 0 | 178 | 0 | 0 | 0 | 0 | 28 | 0 | 23 | 1 |
| 8:45AM | 10 | 183 | 1 | 0 | 0 | 175 | 0 | 0 | 0 | 0 | 19 | 0 | 17 | 0 |
| Hourly Total | 54 | 756 | 5 | 0 | 0 | 318 | 0 | 0 | 0 | 0 | 100 | 0 | 100 | 1 |
| 9:00AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:00PM | 7 | 240 | 1 | 0 | 0 | 253 | 1 | 0 | 0 | 0 | 14 | 0 | 15 | 0 |
| 4:15PM | 3 | 272 | 2 | 0 | 0 | 299 | 1 | 0 | 0 | 0 | 14 | 0 | 15 | 1 |
| 4:30PM | 3 | 278 | 0 | 0 | 0 | 231 | 1 | 1 | 0 | 0 | 14 | 0 | 18 | 0 |
| 4:45PM | 2 | 250 | 1 | 0 | 0 | 284 | 0 | 0 | 0 | 0 | 12 | 0 | 12 | 0 |
| Hourly Total | 15 | 1040 | 4 | 0 | 0 | 1087 | 3 | 1 | 0 | 0 | 54 | 0 | 88 | 1 |
| 5:00PM | 4 | 282 | 1 | 0 | 0 | 239 | 1 | 0 | 0 | 0 | 13 | 0 | 14 | 0 |
| 5:15PM | 4 | 269 | 1 | 0 | 0 | 295 | 1 | 0 | 0 | 0 | 17 | 0 | 19 | 0 |
| 5:30PM | 7 | 223 | 1 | 0 | 0 | 241 | 0 | 0 | 0 | 0 | 4 | 0 | 5 | 0 |
| 5:45PM | 3 | 179 | 1 | 0 | 0 | 134 | 0 | 0 | 0 | 0 | 13 | 0 | 14 | 0 |
| Hourly Total | 18 | 953 | 4 | 0 | 0 | 798 | 2 | 0 | 0 | 0 | 47 | 0 | 59 | 0 |
| 6:00PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **6 Tot a** | 141 | 3512 | 19 | 0 | 1 | **4l 94** | 8 | 2 | 0 | 0 | 304 | 0 | **40l** | 5 |
| **% ApprTt ch** | 3.8% | 95.6% | 0.5% | 0% | 0% | - | - | 0.7% | 0% | 0% | 99.3% | 0% | - | - |
| **% 6 Tot a** | 3.3% | 81.4% | 0.4% | 0% | 0% | **38.1%** | - | 0% | 0% | 0% | 7.0% | 0% | **9.1%** | - |
| **Lighos** | 139 | 3377 | 18 | 0 | 1 | **4848** | - | 0 | 0 | 0 | 294 | 0 | **275** | - |
| **% Lighos** | 98.6% | 96.2% | 94.7% | 0% | 100% | **7l .2%** | - | 0% | 0% | 0% | 96.7% | 0% | **7l .1%** | - |
| **Arcicuat œd 6 rucks t nd Singæ-Unio6 rucks** | 1 | 118 | 1 | 0 | 0 | **120** | - | 0 | 0 | 0 | 8 | 0 | **3** | - |
| **% Arcicuat œd 6 rucks t nd Singæ-Unio6 rucks** | 0.7% | 3.4% | 5.3% | 0% | 0% | **4.4%** | - | 0% | 0% | 0% | 2.6% | 0% | **2.l %** | - |
| **Buses** | 1 | 17 | 0 | 0 | 0 | **13** | - | 0 | 0 | 0 | 2 | 0 | **2** | - |
| **% Buses** | 0.7% | 0.5% | 0% | 0% | 0% | **0.8%** | - | 0% | 0% | 0% | 0.7% | 0% | **0.9%** | - |
| **Bicycæs Tn RTt d** | 0 | 0 | 0 | 0 | 0 | **0** | - | 2 | 0 | 0 | 0 | 0 | **2** | - |
| **% Bicycæs Tn RTt d** | 0% | 0% | 0% | 0% | 0% | **0%** | - | 100% | 0% | 0% | 0% | 0% | **0.9%** | - |
| Pedestrians | - | - | - | - | - | - | 6 | - | - | - | - | - | - | 5 |
| % Pedestrians | - | - | - | - | - | - | 75.0% | - | - | - | - | - | - | 100% |
| Bicycles on Crosswalk | - | - | - | - | - | - | 2 | - | - | - | - | - | - | 0 |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 25.0% | - | - | - | - | - | - | 0% |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn



Revised A - 103

**18 Seneca and Oriskany - TMC**
Wed Jul 18, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549111, Location: 43.103023, -75.230079, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

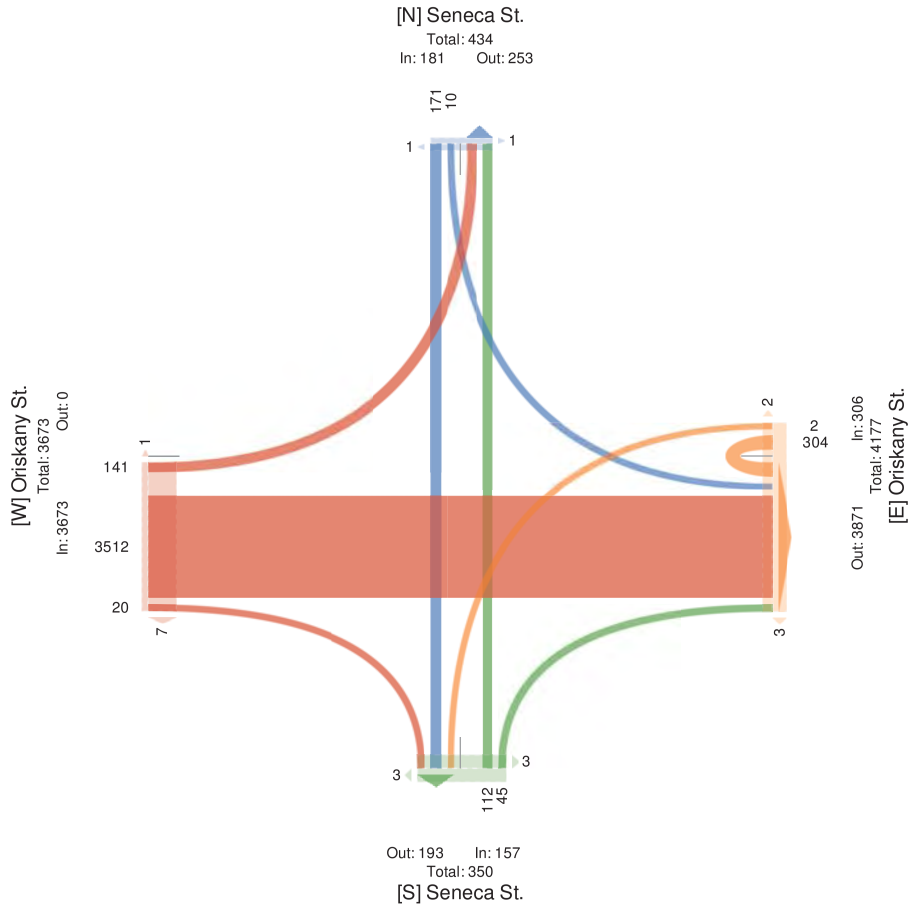
| Leg<br>Direction | Seneca St.<br>Northbound | | | | | | | Seneca St.<br>Southbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | L | T | R | U | RR | App | Ped* | L | T | R | U | RR | App | Ped* | Int |
| 2018-07-18 7:00AM | 0 | 5 | 0 | 0 | 1 | **1** | 1 | 0 | 8 | 0 | 0 | 0 | **6** | 0 | **288** |
| 7:15AM | 0 | 3 | 0 | 0 | 0 | **5** | 2 | 0 | 12 | 0 | 0 | 0 | **24** | 0 | **431** |
| 7:30AM | 0 | 2 | 0 | 0 | 1 | **5** | 0 | 0 | 13 | 0 | 0 | 0 | **25** | 0 | **483** |
| 7:45AM | 0 | 6 | 2 | 0 | 1 | **9** | 0 | 0 | 17 | 0 | 0 | 0 | **28** | 0 | **574** |
| Hourly Total | 0 | 16 | 2 | 0 | 3 | **42** | 3 | 0 | 50 | 0 | 0 | 0 | **07** | 0 | **999** |
| 8:00AM | 0 | 5 | 2 | 0 | 3 | **27** | 0 | 0 | 17 | 0 | 0 | 0 | **28** | 0 | **480** |
| 8:15AM | 0 | 5 | 1 | 0 | 1 | **8** | 0 | 1 | 22 | 0 | 0 | 0 | **45** | 0 | **412** |
| 8:30AM | 0 | 4 | 0 | 0 | 1 | **0** | 0 | 0 | 17 | 0 | 0 | 0 | **28** | 0 | **430** |
| 8:45AM | 0 | 10 | 1 | 0 | 0 | **22** | 0 | 1 | 13 | 0 | 0 | 0 | **23** | 2 | **456** |
| Hourly Total | 0 | 24 | 4 | 0 | 5 | **55** | 0 | 2 | 69 | 0 | 0 | 0 | **82** | 2 | **2729** |
| 9:00AM | 0 | 0 | 0 | 0 | 0 | **7** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 | **7** |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | **7** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 | **7** |
| 4:00PM | 0 | 14 | 1 | 0 | 4 | **29** | 0 | 2 | 7 | 0 | 0 | 0 | **9** | 0 | **497** |
| 4:15PM | 0 | 5 | 2 | 0 | 0 | **8** | 1 | 2 | 4 | 0 | 0 | 0 | **1** | 0 | **573** |
| 4:30PM | 0 | 8 | 6 | 0 | 4 | **26** | 0 | 1 | 7 | 0 | 0 | 0 | **6** | 0 | **544** |
| 4:45PM | 0 | 17 | 1 | 0 | 1 | **29** | 0 | 0 | 10 | 0 | 0 | 0 | **27** | 0 | **493** |
| Hourly Total | 0 | 44 | 10 | 0 | 9 | **15** | 1 | 5 | 28 | 0 | 0 | 0 | **55** | 0 | **2427** |
| 5:00PM | 0 | 8 | 2 | 0 | 1 | **22** | 2 | 0 | 7 | 0 | 0 | 0 | **8** | 0 | **526** |
| 5:15PM | 0 | 4 | 0 | 0 | 3 | **8** | 0 | 1 | 6 | 0 | 0 | 0 | **8** | 0 | **570** |
| 5:30PM | 0 | 11 | 2 | 0 | 1 | **23** | 0 | 1 | 4 | 0 | 0 | 0 | **0** | 0 | **403** |
| 5:45PM | 0 | 5 | 2 | 0 | 1 | **6** | 0 | 1 | 7 | 0 | 0 | 0 | **6** | 0 | **424** |
| Hourly Total | 0 | 28 | 6 | 0 | 6 | **37** | 2 | 3 | 24 | 0 | 0 | 0 | **48** | 0 | **2769** |
| 6:00PM | 0 | 0 | 0 | 0 | 0 | **7** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 | **7** |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | **7** | 0 | 0 | 0 | 0 | 0 | 0 | **7** | 0 | **7** |
| **Total** | 0 | 112 | 22 | 0 | 23 | **208** | 6 | 10 | 171 | 0 | 0 | 0 | **262** | 2 | **3528** |
| **% Approach** | 0% | 71.3% | 14.0% | 0% | 14.6% | - | - | 5.5% | 94.5% | 0% | 0% | 0% | - | - | - |
| **% Total** | 0% | 2.6% | 0.5% | 0% | 0.5% | **5.1%** | - | 0.2% | 4.0% | 0% | 0% | 0% | **3.4%** | - | - |
| **Lights** | 0 | 107 | 21 | 0 | 22 | **207** | - | 9 | 160 | 0 | 0 | 0 | **219** | - | 4148 |
| **% Lights** | 0% | 95.5% | 95.5% | 0% | 95.7% | **90.0%** | - | 90.0% | 93.6% | 0% | 0% | 0% | **95.3%** | - | 96.1% |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 3 | 1 | 0 | 1 | **0** | - | 0 | 6 | 0 | 0 | 0 | **1** | - | 139 |
| **% Articulated Trucks and Single-Unit Trucks** | 0% | 2.7% | 4.5% | 0% | 4.3% | **5.4%** | - | 0% | 3.5% | 0% | 0% | 0% | **5.5%** | - | 3.2% |
| **Buses** | 0 | 0 | 0 | 0 | 0 | **7** | - | 1 | 4 | 0 | 0 | 0 | **0** | - | 25 |
| **% Buses** | 0% | 0% | 0% | 0% | 0% | **7%** | - | 10.0% | 2.3% | 0% | 0% | 0% | **4.6%** | - | 0.6% |
| **Bicycles on Road** | 0 | 2 | 0 | 0 | 0 | **4** | - | 0 | 1 | 0 | 0 | 0 | **2** | - | 5 |
| **% Bicycles on Road** | 0% | 1.8% | 0% | 0% | 0% | **2.5%** | - | 0% | 0.6% | 0% | 0% | 0% | **7.1%** | - | 0.1% |
| Pedestrians | - | - | - | - | - | - | 5 | - | - | - | - | - | - | 2 | |
| % Pedestrians | - | - | - | - | - | - | 83.3% | - | - | - | - | - | - | 100% | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 16.7% | - | - | - | - | - | - | 0% | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn



**18 Seneca and Oriskany - TMC**
Wed Jul 18, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549111, Location: 43.103023, -75.230079, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US



**18 Seneca and Oriskany - TMC**
Wed Jul 18, 2018
AM Peak (7:30AM - 8:30AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549111, Location: 43.103023, -75.230079, Site Code: Utica, 6 ew Nork

Provided Yy: Tri-State Trabic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg / Direction / Time | f riskany St. OastYound L | T | R | U | RR | App | PedE | f riskany St. WestYound L | T | R | U | RR | App | PedE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2018-07-18 7:30AM | 14 | 212 | 1 | 0 | 0 | **224** | 0 | 0 | 0 | 0 | 31 | 0 | **03** | 0 |
| 7:45AM | 15 | 225 | 4 | 0 | 1 | **279** | 1 | 0 | 0 | 0 | 31 | 0 | **03** | 1 |
| 8:00AM | 10 | 20* | 2 | 0 | 0 | **231** | 0 | 0 | 0 | 0 | 30 | 0 | **05** | 0 |
| 8:15AM | 22 | 18* | 0 | 0 | 0 | **251** | 0 | 0 | 0 | 0 | 23 | 0 | **20** | 0 |
| **6 Tα a** | *1 | 829 | 7 | 0 | 1 | **1l 1** | 1 | 0 | 0 | 0 | 115 | 0 | **339** | 1 |
| **% ApprTt ch** | *.8% | 92.3% | 0.8% | 0% | 0.1% | - | - | 0% | 0% | 0% | 100% | 0% | - | - |
| **% 6 Tα a** | 5.5% | 74.*% | 0.*% | 0% | 0.1% | **158 1%** | - | 0% | 0% | 0% | 10.3% | 0% | **358 0%** | - |
| **. PH** | 0.*93 | 0.921 | 0.438 | - | 0.250 | **58 3F** | - | - | - | - | 0.927 | - | **58 24** | - |
| **Lighα** | *1 | 785 | * | 0 | 1 | **190** | - | 0 | 0 | 0 | 115 | 0 | **339** | - |
| **% Lighα** | 100% | 94.7% | 85.7% | 0% | 100% | **198 5%** | - | 0% | 0% | 0% | 100% | 0% | **355%** | - |
| **Ardcuat œd 6 rucks t nd Singæ-Unio6 rucks** | 0 | 37 | 1 | 0 | 0 | **01** | - | 0 | 0 | 0 | 0 | 0 | **5** | - |
| **% Ardcuat œd 6 rucks t nd Singæ-Unio6 rucks** | 0% | 4.5% | 14.3% | 0% | 0% | **7 82%** | - | 0% | 0% | 0% | 0% | 0% | **5%** | - |
| **Buses** | 0 | 7 | 0 | 0 | 0 | **4** | - | 0 | 0 | 0 | 0 | 0 | **5** | - |
| **% Buses** | 0% | 0.8% | 0% | 0% | 0% | **58 1%** | - | 0% | 0% | 0% | 0% | 0% | **5%** | - |
| **Bicycæs Tn RTt d** | 0 | 0 | 0 | 0 | 0 | **5** | - | 0 | 0 | 0 | 0 | 0 | **5** | - |
| **% Bicycæs Tn RTt d** | 0% | 0% | 0% | 0% | 0% | **5%** | - | 0% | 0% | 0% | 0% | 0% | **5%** | - |
| Pedestrians | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 1 |
| % Pedestrians | - | - | - | - | - | - | 0% | - | - | - | - | - | - | 100% |
| Bicycles on Crosswalk | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 0 |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 100% | - | - | - | - | - | - | 0% |

[E]Pedestrians and Bicycles on Crosswalk. L: Lebt, R: Right, RR: Right on red, T: Thru, U: U-Turn



**18 Seneca and Oriskany - TMC**
Wed Jul 18, 2018
AM Peak (7:30AM - 8:30AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549111, Location: 43.103023, -75.230079, Site Code: Utica, 6 ew Nork

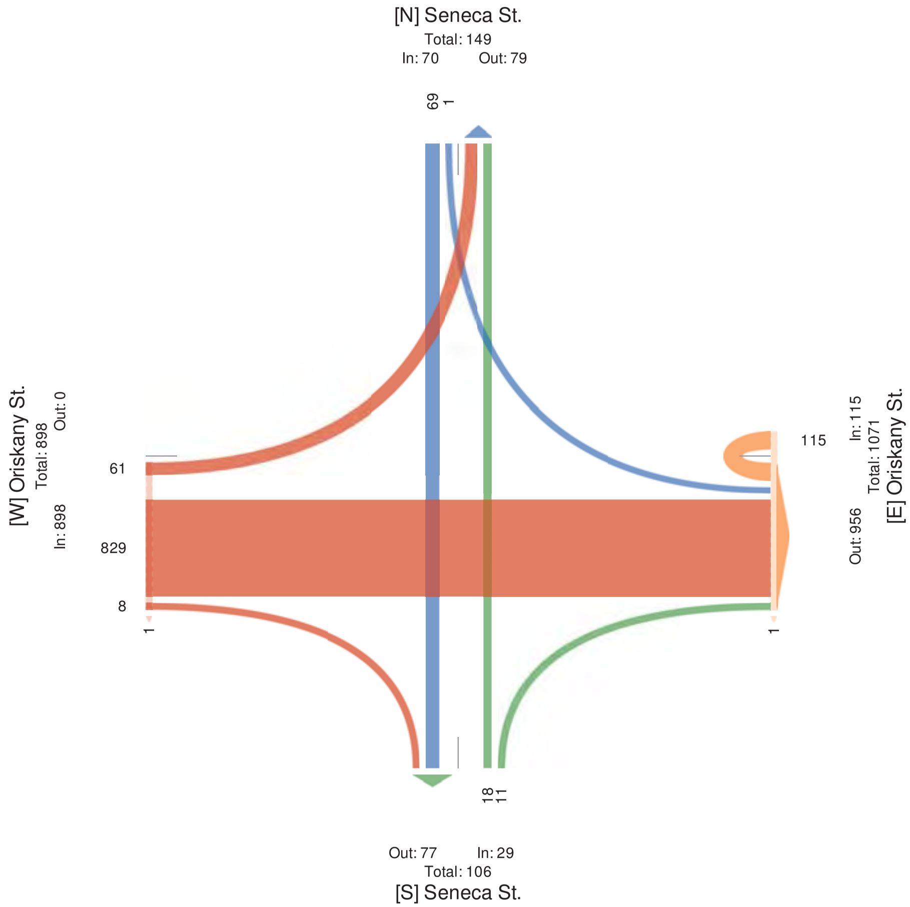
Provided Yy: Tri-State Trabic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg / Direction / Time | Seneca St. 6 orth Yound L | T | R | U | RR | App | Pedf | Seneca St. South Yound L | T | R | U | RR | App | Pedf | Int |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2018-07-18 7:30AM | 0 | 2 | 0 | 0 | 1 | **3** | 0 | 0 | 13 | 0 | 0 | 0 | **13** | 0 | **274** |
| 7:45AM | 0 | * | 2 | 0 | 1 | **9** | 0 | 0 | 17 | 0 | 0 | 0 | **17** | 0 | **302** |
| 8:00AM | 0 | 5 | 2 | 0 | 3 | **10** | 0 | 0 | 17 | 0 | 0 | 0 | **17** | 0 | **275** |
| 8:15AM | 0 | 5 | 1 | 0 | 1 | **7** | 0 | 1 | 22 | 0 | 0 | 0 | **23** | 0 | **261** |
| **Total** | 0 | 18 | 5 | 0 | * | **29** | 0 | 1 | *9 | 0 | 0 | 0 | **70** | 0 | **1112** |
| **% Approach** | 0% | *2.1% | 17.2% | 0% | 20.7% | - | - | 1.4% | 98.*% | 0% | 0% | 0% | - | - | - |
| **% Total** | 0% | 1.*% | 0.4% | 0% | 0.5% | **2.6%** | - | 0.1% | *.2% | 0% | 0% | 0% | **6.3%** | - | - |
| **PHF** | - | 0.750 | 0.*25 | - | 0.500 | **0.725** | - | 0.250 | 0.784 | - | - | - | **0.761** | - | 0.921 |
| **Lights** | 0 | 1* | 5 | 0 | * | **27** | - | 1 | *5 | 0 | 0 | 0 | **66** | - | 10*1 |
| **% Lights** | 0% | 88.9% | 100% | 0% | 100% | **93.1%** | - | 100% | 94.2% | 0% | 0% | 0% | **94.3%** | - | 95.4% |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 1 | 0 | 0 | 0 | **1** | - | 0 | 2 | 0 | 0 | 0 | **2** | - | 41 |
| **% Articulated Trucks and Single-Unit Trucks** | 0% | 5.*% | 0% | 0% | 0% | **3.4%** | - | 0% | 2.9% | 0% | 0% | 0% | **2.9%** | - | 3.7% |
| **Buses** | 0 | 0 | 0 | 0 | 0 | **0** | - | 0 | 2 | 0 | 0 | 0 | **2** | - | 9 |
| **% Buses** | 0% | 0% | 0% | 0% | 0% | **0%** | - | 0% | 2.9% | 0% | 0% | 0% | **2.9%** | - | 0.8% |
| **Bicycles on Road** | 0 | 1 | 0 | 0 | 0 | **1** | - | 0 | 0 | 0 | 0 | 0 | **0** | - | 1 |
| **% Bicycles on Road** | 0% | 5.*% | 0% | 0% | 0% | **3.4%** | - | 0% | 0% | 0% | 0% | 0% | **0%** | - | 0.1% |
| Pedestrians | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

[f] Pedestrians and Bicycles on Crosswalk. L: Lebt, R: Right, RR: Right on red, T: Thru, U: U-Turn

**18 Seneca and Oriskany - TMC**
Wed Jul 18, 2018
P M aek( 4- 5) 0P M A85) 0P MC
P ll s lkLLeL 4i ght rL, P crgTulkred n cuT(L kSd UgShle ABSgr n cuT(L, yuLeL, aede LrcgkSL, ygToTleL RS wRkd, ygToTleL RS s cRLLv kl(C
P ll MRme I e SrL
D 593. 111, i RTkrgRS53) 710) 02), A972) 00- . , Uge s Rde 5BrgTk, Nev YRc(

acRmgled bo5n cgAUrkre n ckffgT
: krk, DST7
183 y k( ec wRkd,
s RkreLmgle, aP, 1. ) 20, BU






**18 Seneca and Oriskany - TMC**
Wed Jul 18, 2018
Forced Peak (7P: 45P: A
Mll - la))e) (CsLi g), Mrgsculaged hruck) at d Tst Lle4n t sghruck), Su)e), Pede)grsat ), SscUcle) ot Boad, SscUcle) ot - ro))y alkA
Mll : oRewet g)
vmI 57D111, Cocagsot I793109029, 4. 532900. D, Tsge - odeIn gsca, 6ey Nork

ProRsded YUIh rs4Tgage hrabsc
maga, vt c3
187 Saker Boad,
- oage) Rslle, PM, 1D920, n T

| CeL msrecgsot | f rs) kat UTg3 Oa) gYout d | | | | | | | f rs) kat UTg3 We) gYout d | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| h swe | C | h | B | n | BB | **App** | PedE | C | h | B | n | BB | **App** | PedE |
| 20184). 418 7I00P: | . | 270 | 1 | 0 | 0 | **240** | 1 | 0 | 0 | 0 | 17 | 0 | **34** | 0 |
| 7I15P: | 9 | 2. 2 | 2 | 0 | 0 | **277** | 1 | 0 | 0 | 0 | 17 | 0 | **34** | 1 |
| 7I90P: | 9 | 2. 8 | 0 | 0 | 0 | **203** | 1 | 1 | 0 | 0 | 17 | 0 | **39** | 0 |
| 7I75P: | 2 | 250 | 1 | 0 | 0 | **291** | 0 | 0 | 0 | 0 | 12 | 0 | **32** | 0 |
| **5 o'lot** | 15 | 1070 | 7 | 0 | 0 | **3a91** | 9 | 1 | 0 | 0 | 57 | 0 | **99** | 1 |
| **% Appr6och** | 137* | D832* | 037* | 0* | 0* | - | 4 | 133* | 0* | 0* | D832* | 0* | - | 4 |
| **% 5 6Tot** | 132* | 8%30* | 039* | 0* | 0* | **0789%** | 4 | 031* | 0* | 0* | 735* | 0* | **489%** | 4 |
| **. PH** | 0359% | 03D95 | 03500 | 4 | 4 | **a8 42** | 4 | 03250 | 4 | 4 | 03D%7 | 4 | **a8 37** | 4 |
| **FLi hTg** | 17 | 101% | 7 | 0 | 0 | **3a14** | 4 | 0 | 0 | 0 | 52 | 0 | **92** | 4 |
| **% FLi hTg** | D939* | D. 3 * | 100* | 0* | 0* | **178s %** | 4 | 0* | 0* | 0* | D%39* | 0* | **1489%** | 4 |
| **ArTIcutoTed 5 ruckg ond SIni te-UnIT5 ruckg** | 0 | 20 | 0 | 0 | 0 | **2a** | 4 | 0 | 0 | 0 | 1 | 0 | **3** | 4 |
| **% ArTIcutoTed 5 ruckg ond SIni te-UnIT5 ruckg** | 0* | 13D* | 0* | 0* | 0* | **381 %** | 4 | 0* | 0* | 0* | 13D* | 0* | **380%** | 4 |
| **Bugeg** | 1 | 7 | 0 | 0 | 0 | **9** | 4 | 0 | 0 | 0 | 1 | 0 | **3** | 4 |
| **% Bugeg** | %3. * | 037* | 0* | 0* | 0* | **a89%** | 4 | 0* | 0* | 0* | 13D* | 0* | **380%** | 4 |
| **BIcycteg 6n R6od** | 0 | 0 | 0 | 0 | 0 | **a** | 4 | 1 | 0 | 0 | 0 | 0 | **3** | 4 |
| **% BIcycteg 6n R6od** | 0* | 0* | 0* | 0* | 0* | **a%** | 4 | 100* | 0* | 0* | 0* | 0* | **380%** | 4 |
| Pede)grsat ) | 4 | 4 | 4 | 4 | 4 | 4 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 1 |
| * Pede)grsat ) | 4 | 4 | 4 | 4 | 4 | 4 | %%3 * | 4 | 4 | 4 | 4 | 4 | 4 | 100* |
| SscUcle) ot - ro))yalk | 4 | 4 | 4 | 4 | 4 | 4 | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 0 |
| * SscUcle) ot - ro))yalk | 4 | 4 | 4 | 4 | 4 | 4 | 9939* | 4 | 4 | 4 | 4 | 4 | 4 | 0* |

EPede)grsat ) at d SscUcle) ot - ro))y alk3CI Cebg BIBsLi g BBIBsLi got red, h I h i ru, n In 4h urt



Revised A - 106

**18 Seneca and Oriskany - TMC**
Wed Jul 18, 2018
Forced Peak (7P: 45P: A
Mll - la))e) (CsLi g), Mrgsculaged h ruck) at d Tst Lle4n t sgh ruck), Su)e), Pede)grsat ), SscUcle)
ot Boad, SscUcle) ot - ro))y alkA
Mll : oRewet g)
vmI 57D111, Cocagsot I 793109029, 4 532900. D, Tsge - odeIn gsca, 6 ey Nork

TRI-STATE TRAFFIC DATA
ProRsded YUIh rs4Tgage h rabsc
maga, vt c3
187 Saker Boad,
- oage)Rslle, PM, 1D920, n T

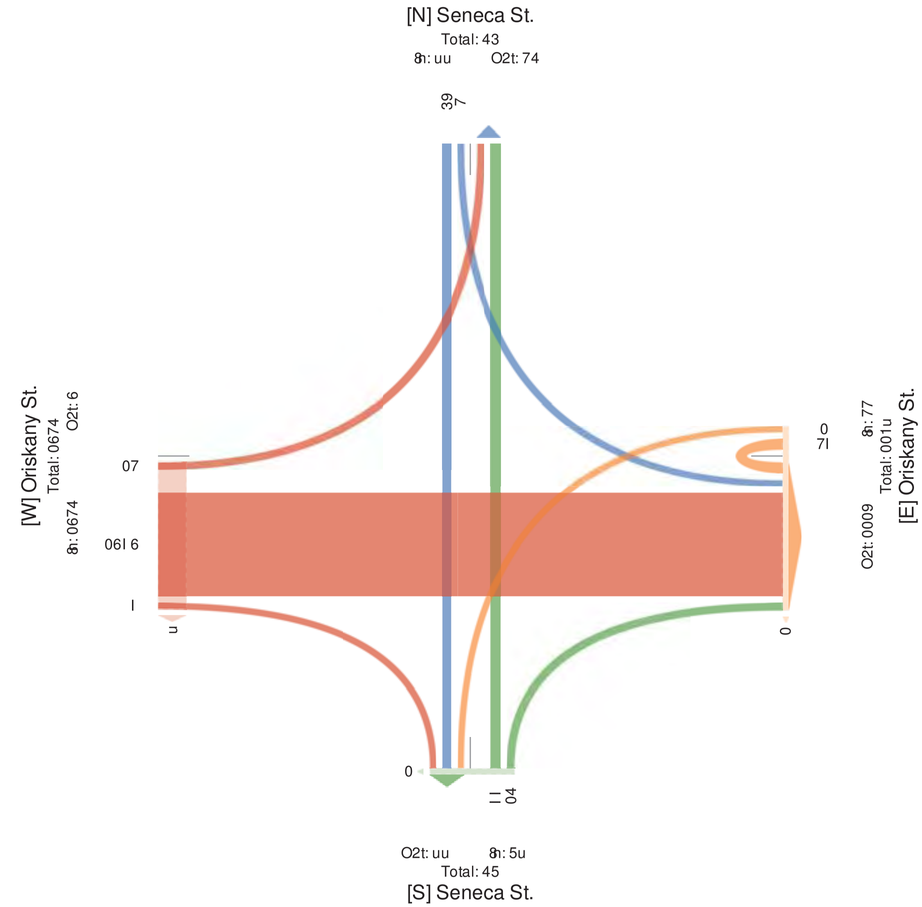
| CeL msrecgsot | Tet eca Tg3 6orgi Yout d | | | | | | | Tet eca Tg3 Tougi Yout d | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| hswe | C | h | B | n | BB | **App** | Pedf | C | h | B | n | BB | **App** | Pedf | **Int** |
| 20184 0. 418 7I00P: | 0 | 17 | 1 | 0 | 7 | **25** | 0 | 2 | . | 0 | 0 | 0 | **5** | 0 | **157** |
| 7I15P: | 0 | 5 | 2 | 0 | 0 | **4** | 1 | 2 | 7 | 0 | 0 | 0 | **8** | 0 | **073** |
| 7I90P: | 0 | 8 | * | 0 | 7 | **26** | 0 | 1 | . | 0 | 0 | 0 | **6** | 0 | **011** |
| 7I75P: | 0 | 1. | 1 | 0 | 1 | **25** | 0 | 0 | 10 | 0 | 0 | 0 | **27** | 0 | **153** |
| **9 ıtoa** | 0 | 77 | 10 | 0 | D | **80** | 1 | 5 | 28 | 0 | 0 | 0 | **00** | 0 | **2127** |
| **l %App Torc** | 0% | *D38% | 153D% | 0% | 1739% | **h** | 4 | 1532% | 8738% | 0% | 0% | 0% | **h** | 4 | 4 |
| **l %Ttoa** | 0% | 93*% | 038% | 0% | 03 % | **-.1l** | 4 | 037% | 239% | 0% | 0% | 0% | **1.4l** | 4 | 4 |
| **PHF** | 4 | 03*7. | 0371. | 4 | 035*9 | **7.615** | 4 | 03*25 | 03 00 | 4 | 4 | 4 | **7.61-** | 4 | 03D9D |
| **Ligcts** | 0 | 77 | 10 | 0 | D | **80** | 4 | 7 | 2. | 0 | 0 | 0 | **02** | 4 | 1180 |
| **l %Ligcts** | 0% | 100% | 100% | 0% | 100% | **277l** | 4 | 8030% | D*37% | 0% | 0% | 0% | **50.5l** | 4 | D. 35% |
| **A tiruaoted% urks%nd%ingaelUnit% urks** | 0 | 0 | 0 | 0 | 0 | **7** | 4 | 0 | 1 | 0 | 0 | 0 | **2** | 4 | 22 |
| **l %A tiruaoted% urks%nd%ingaelUnit% urks** | 0% | 0% | 0% | 0% | 0% | **7l** | 4 | 0% | 93*% | 0% | 0% | 0% | **0.7l** | 4 | 138% |
| **Buses** | 0 | 0 | 0 | 0 | 0 | **7** | 4 | 1 | 0 | 0 | 0 | 0 | **2** | 4 | . |
| **l %Buses** | 0% | 0% | 0% | 0% | 0% | **7l** | 4 | 2030% | 0% | 0% | 0% | 0% | **0.7l** | 4 | 03*% |
| **Biryraes%n%RTod** | 0 | 0 | 0 | 0 | 0 | **7** | 4 | 0 | 0 | 0 | 0 | 0 | **7** | 4 | 1 |
| **l %Biryraes%n%RTod** | 0% | 0% | 0% | 0% | 0% | **7l** | 4 | 0% | 0% | 0% | 0% | 0% | **7l** | 4 | 031% |
| Pede)grsat ) | 4 | 4 | 4 | 4 | 4 | 4 | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 0 | |
| % Pede)grsat ) | 4 | 4 | 4 | 4 | 4 | 4 | 100% | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| SscUcle) ot - ro))y alk | 4 | 4 | 4 | 4 | 4 | 4 | 0 | 4 | 4 | 4 | 4 | 4 | 4 | 0 | |
| % SscUcle) ot - ro))y alk | 4 | 4 | 4 | 4 | 4 | 4 | 0% | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |

f Pede)grsat ) at d SscUcle) ot - ro))y alk3CI Cebg BI BsLi g BBI BsLi got red, h I h i ru, n In 4h urt



**18 Seneca and Oriskany - TMC**
Wed Jul 18, 2018
Forced Peak (7P: 45P: A
Mll - la))e) (CsLi g), Mrgsculaged h ruck) at d Tst Lle4n t sgh ruck), Su)e), Pede)grsat ), SscUcle)
ot Boad, SscUcle) ot - ro))y alkA
Mll : oRewet g)
vmI 57D111, Cocagsot I 793109029, 4 532900. D, Tsge - odeIn gsca, Ney York

TRI-STATE TRAFFIC DATA
ProRsded bUIh rs4Tgage h raffsc
maga, vt c3
187 Saker Boad,
- oage)Rslle, PM, 1D920, n T



## 18 Seneca and Oriskany - TMC

Wed Jul 18, 2018
PM Peak (4-50PM ) O50PMv ) r Heoall Peak ACuo
s ll Llaiiei (ght cTr, s oThulaTed S ounki aUd BlUt le)y UhTS ounki , Ruiei , Pedei TohaUi , Rlnwnlei CUmCad, Rlnwnlei CUL oCiiI alkv
s ll MCHeDeUTr
:9 - O43111, gCnaTiCU- 45.105025, )7O.250073, BhTe L Cde - y Tma, 6 eI NCok

PoCHded Yw- S oh)BTaTe S oabbn
9 aTa, : Un.
184 Rakeom Cad,
L CaTei Hille, Ps , 13520, y B

| get | r ohi ka UwBT. | | | | | | | r ohi ka UwBT | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 hoe nTiCU | f ai TYCuUd | | | | | | | Wei TYCuUd | | | | | | |
| ShDe | g | S | m | y | mm | App | PedE | g | S | m | y | mm | App | PedE |
| 2018)07)18 4-50PM | 5 | 278 | 0 | 0 | 0 | **240** | 1 | 1 | 0 | 0 | 14 | 0 | **03** | 0 |
| 4-4OPM | 2 | 2O0 | 1 | 0 | 0 | **237** | 0 | 0 | 0 | 0 | 12 | 0 | **02** | 0 |
| O-00PM | 4 | 282 | 1 | 0 | 0 | **249** | 1 | 0 | 0 | 0 | 15 | 0 | **07** | 0 |
| O-1OPM | 4 | 2*3 | 1 | 0 | 0 | **291** | 1 | 0 | 0 | 0 | 17 | 0 | **09** | 0 |
| **5 6Tbt** | 15 | 1073 | 5 | 0 | 0 | **0al 3** | 5 | 1 | 0 | 0 | O* | 0 | **39** | 0 |
| **% Appr6och** | 1.2% | 38.O% | 0.5% | 0% | 0% | - | ) | 1.8% | 0% | 0% | 38.2% | 0% | - | ) |
| **% 5 6Tbt** | 1.0% | 87.1% | 0.2% | 0% | 0% | **448l %** | ) | 0.1% | 0% | 0% | 4.O% | 0% | **18. %** | ) |
| **PHF** | 0.815 | 0.3O7 | 0.7O0 | ) | ) | **a8l 31** | ) | 0.2O0 | ) | ) | 0.824 | ) | **a8474** | ) |
| **LighTs** | 15 | 10*2 | 5 | 0 | 0 | **0a94** | ) | 0 | 0 | 0 | O4 | 0 | **31** | ) |
| **% LighTs** | 100% | 38.4% | 100% | 0% | 0% | **l 48l %** | ) | 0% | 0% | 0% | 3*.4% | 0% | **l 189%** | ) |
| **ArTcutoTed 5 rucks ond Singte-UniT5 rucks** | 0 | 1* | 0 | 0 | 0 | **0.** | ) | 0 | 0 | 0 | 1 | 0 | **0** | ) |
| **% ArTcutoTed 5 rucks ond Singte-UniT5 rucks** | 0% | 1.O% | 0% | 0% | 0% | **083 %** | ) | 0% | 0% | 0% | 1.8% | 0% | **084 %** | ) |
| **Buses** | 0 | 1 | 0 | 0 | 0 | **0** | ) | 0 | 0 | 0 | 1 | 0 | **0** | ) |
| **% Buses** | 0% | 0.1% | 0% | 0% | 0% | **a80%** | ) | 0% | 0% | 0% | 1.8% | 0% | **084 %** | ) |
| **Bicyctes 6n R6od** | 0 | 0 | 0 | 0 | 0 | **a** | ) | 1 | 0 | 0 | 0 | 0 | **0** | ) |
| **% Bicyctes 6n R6od** | 0% | 0% | 0% | 0% | 0% | **a %** | ) | 100% | 0% | 0% | 0% | 0% | **084 %** | ) |
| Pedei TohaUi | ) | ) | ) | ) | ) | ) | 5 | ) | ) | ) | ) | ) | ) | 0 |
| % Pedei TohaUi | ) | ) | ) | ) | ) | ) | 100% | ) | ) | ) | ) | ) | ) | ) |
| Rlnwnlei CU L oCiiI alk | ) | ) | ) | ) | ) | ) | 0 | ) | ) | ) | ) | ) | ) | 0 |
| % Rlnwnlei CU L oCiiI alk | ) | ) | ) | ) | ) | ) | 0% | ) | ) | ) | ) | ) | ) | ) |

[E] Pedei TohaUi aUd Rlnwnlei CUL oCiiI alk. g - gebT, m - mht cT, mm - mht cTCUoed, S - S cou, y - y )S uoU



## 18 Seneca and Oriskany - TMC

Wed Jul 18, 2018
PM Peak (4:30PM - 5:30PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549111, Location: 43.103023, -65.230069, Site Code: Utica, 7ew Nork

Provided Yy: Tri-State Trabbic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Seneca St. | | | | | | | Seneca St. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | 7orthYound | | | | | | | SouthYound | | | | | | | |
| Time | L | T | R | U | RR | App | Pedf | L | T | R | U | RR | App | Pedf | **Int** |
| 2018-06-18 4:30PM | 0 | 8 | * | 0 | 4 | **25** | 0 | 1 | 6 | 0 | 0 | 0 | **5** | 0 | **177** |
| 4:45PM | 0 | 16 | 1 | 0 | 1 | **24** | 0 | 0 | 10 | 0 | 0 | 0 | **28** | 0 | **740** |
| 5:00PM | 0 | 8 | 2 | 0 | 1 | **22** | 2 | 0 | 6 | 0 | 0 | 0 | **3** | 0 | **125** |
| 5:15PM | 0 | 4 | 0 | 0 | 3 | **3** | 0 | 1 | * | 0 | 0 | 0 | **3** | 0 | **186** |
| **9 Ttoa** | 0 | 36 | 9 | 0 | 9 | **66** | 2 | 2 | 30 | 0 | 0 | 0 | **17** | 0 | **2714** |
| **l %App Torc** | 0% | *6.3% | 1*.4% | 0% | 1*.4% | **h** | - | *.3% | 93.8% | 0% | 0% | 0% | **h** | - | - |
| **l % Ttoa** | 0% | 3.0% | 0.6% | 0% | 0.6% | **0-0l** | - | 0.2% | 2.4% | 0% | 0% | 0% | **7-. l** | - | - |
| **PHF** | - | 0.544 | 0.365 | - | 0.5*3 | **8-370** | - | 0.500 | 0.650 | - | - | - | **8-588** | - | 0.9*2 |
| **Ligcts** | 0 | 3* | 9 | 0 | 9 | **60** | - | 2 | 29 | 0 | 0 | 0 | **12** | - | 1216 |
| **l %Ligcts** | 0% | 96.3% | 100% | 0% | 100% | **45-7l** | - | 100% | 9*.6% | 0% | 0% | 0% | **4. -4l** | - | 98.2% |
| **A tiruated% urks%nd%ingaeUnit% urks** | 0 | 1 | 0 | 0 | 0 | **2** | - | 0 | 0 | 0 | 0 | 0 | **8** | - | 18 |
| **l %A tiruated% urks%nd%ingaeUnit% urks** | 0% | 2.6% | 0% | 0% | 0% | **2-5l** | - | 0% | 0% | 0% | 0% | 0% | **8l** | - | 1.5% |
| **Buses** | 0 | 0 | 0 | 0 | 0 | **8** | - | 0 | 1 | 0 | 0 | 0 | **2** | - | 3 |
| **l %Buses** | 0% | 0% | 0% | 0% | 0% | **8l** | - | 0% | 3.3% | 0% | 0% | 0% | **1-2l** | - | 0.2% |
| **Biryraes%n%RTod** | 0 | 0 | 0 | 0 | 0 | **8** | - | 0 | 0 | 0 | 0 | 0 | **8** | - | 1 |
| **l %Biryraes%n%RTod** | 0% | 0% | 0% | 0% | 0% | **8l** | - | 0% | 0% | 0% | 0% | 0% | **8l** | - | 0.1% |
| Pedestrians | - | - | - | - | - | - | 2 | - | - | - | - | - | - | 0 | |
| % Pedestrians | - | - | - | - | - | - | 100% | - | - | - | - | - | - | - | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 0% | - | - | - | - | - | - | - | - |

[f] Pedestrians and Bicycles on Crosswalk. L: Lebt, R: Right, RR: Right on red, T: Thru, U: U-Turn

**18 Seneca and Oriskany - TMC**

Wed Jul 18, 2018

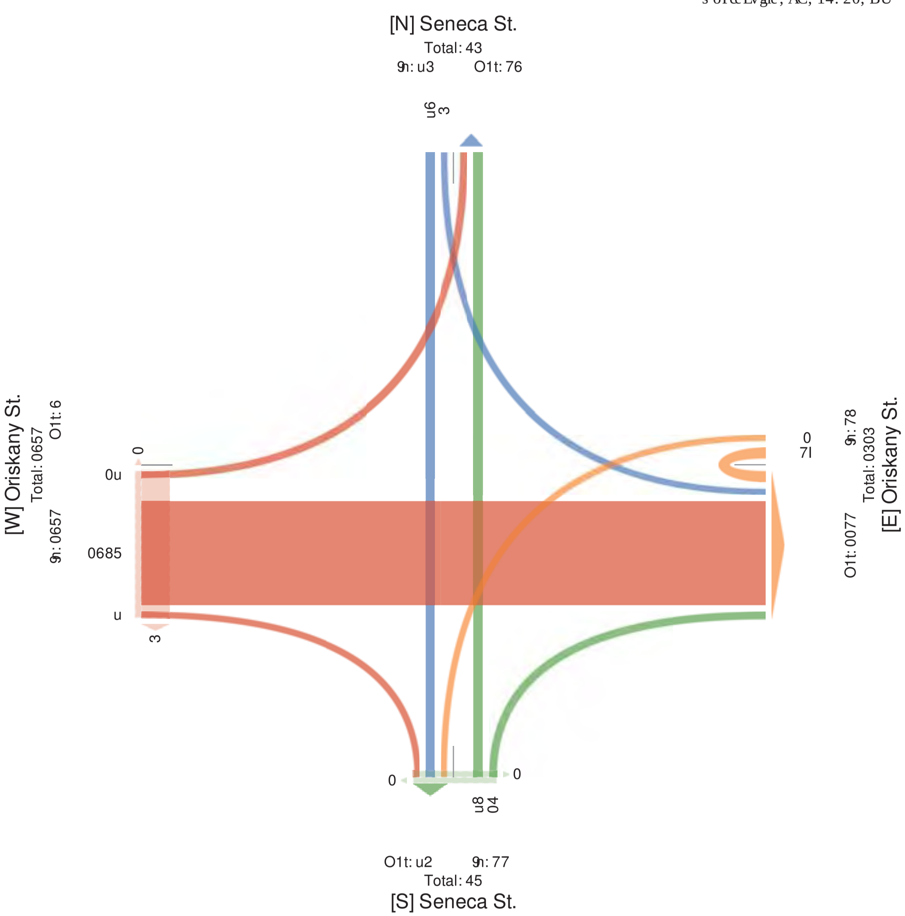
AM AePa k( 7 0AM 3- 7 0AM) 3OverPll AePa Hour

Cll s lPLLeL ki ght cL, CrcgTulPced n ruTaL PSd UgShle 3BSgcn ruTaL, yuLeL, AedeLcrgPSL, ygTRleL oS woPd, ygTRleL oS s roLLmPla)

Cll MoveI eSdL

D57-( 4111, i oTPcgoS7( : 910: 02: , 3 - 92: 00. 4, Uge s ode7BcgTP, Nem Yora

Arovgled bR7n rgUcPce n rPffgT 5 PcP, DST9 18( yPaer woPd, s oPceLvgle, AC, 14: 20, BU




Utica, NY
Seneca/Lafayette
Wednesday, July 18, 2018
Location: 43.102188, -75.230743

www.TSTData.com
184 Baker Rd
Coatesville, Pennsylvania, United States 19320
610-466-1469 jvetterlein@tstdata.com
Serving Transportation Professionals Since 1995

Count Name: 19. Seneca and Lafayette
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 1

## Turning Movement Data

| | Seneca St. Southbound | | | | | | | Lafayette St. Westbound | | | | | | | Seneca St. Northbound | | | | | | | Lafayette St. Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Int. Total |
| 7:00 AM | 4 | 1 | 0 | 0 | 0 | 1 | 5 | 4 | 0 | 11 | 2 | 0 | 1 | 17 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 0 | 16 | 0 | 0 | 1 | 16 | 40 |
| 7:15 AM | 9 | 4 | 0 | 2 | 0 | 1 | 15 | 1 | 0 | 22 | 2 | 0 | 0 | 25 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 14 | 2 | 0 | 2 | 16 | 58 |
| 7:30 AM | 8 | 4 | 1 | 2 | 0 | 0 | 15 | 1 | 0 | 22 | 1 | 0 | 0 | 24 | 0 | 0 | 0 | 2 | 0 | 1 | 2 | 0 | 0 | 14 | 2 | 0 | 0 | 16 | 57 |
| 7:45 AM | 13 | 2 | 1 | 5 | 0 | 0 | 21 | 5 | 0 | 36 | 2 | 0 | 0 | 43 | 0 | 0 | 0 | 2 | 0 | 4 | 2 | 0 | 0 | 22 | 3 | 0 | 1 | 25 | 91 |
| Hourly Total | 34 | 11 | 2 | 9 | 0 | 2 | 56 | 11 | 0 | 91 | 7 | 0 | 1 | 109 | 1 | 0 | 0 | 7 | 0 | 6 | 8 | 0 | 0 | 66 | 7 | 0 | 4 | 73 | 246 |
| 8:00 AM | 4 | 7 | 2 | 4 | 0 | 2 | 17 | 3 | 0 | 27 | 4 | 0 | 4 | 34 | 1 | 2 | 2 | 2 | 0 | 0 | 7 | 1 | 0 | 29 | 5 | 0 | 0 | 35 | 93 |
| 8:15 AM | 10 | 10 | 0 | 1 | 0 | 2 | 21 | 4 | 0 | 31 | 0 | 0 | 0 | 35 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 1 | 0 | 27 | 4 | 0 | 1 | 32 | 88 |
| 8:30 AM | 5 | 9 | 0 | 3 | 0 | 0 | 17 | 2 | 0 | 27 | 1 | 0 | 0 | 30 | 0 | 1 | 1 | 0 | 0 | 3 | 2 | 1 | 1 | 33 | 2 | 0 | 2 | 37 | 86 |
| 8:45 AM | 5 | 5 | 1 | 2 | 0 | 2 | 13 | 7 | 0 | 36 | 2 | 0 | 0 | 45 | 3 | 0 | 0 | 2 | 0 | 1 | 5 | 2 | 0 | 19 | 5 | 0 | 2 | 26 | 89 |
| Hourly Total | 24 | 31 | 3 | 10 | 0 | 6 | 68 | 16 | 0 | 121 | 7 | 0 | 4 | 144 | 4 | 3 | 3 | 4 | 0 | 9 | 14 | 5 | 1 | 108 | 16 | 0 | 5 | 130 | 356 |
| 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:00 PM | 2 | 4 | 0 | 2 | 0 | 1 | 8 | 9 | 1 | 57 | 7 | 0 | 1 | 74 | 1 | 2 | 5 | 2 | 0 | 5 | 10 | 5 | 0 | 36 | 2 | 0 | 1 | 43 | 135 |
| 4:15 PM | 2 | 4 | 1 | 0 | 0 | 1 | 7 | 3 | 0 | 51 | 3 | 0 | 0 | 57 | 0 | 2 | 0 | 5 | 0 | 4 | 7 | 5 | 0 | 33 | 5 | 1 | 1 | 44 | 115 |
| 4:30 PM | 3 | 2 | 1 | 4 | 0 | 0 | 10 | 9 | 0 | 59 | 0 | 0 | 1 | 68 | 2 | 4 | 1 | 1 | 0 | 2 | 8 | 1 | 0 | 37 | 7 | 0 | 3 | 45 | 131 |
| 4:45 PM | 5 | 3 | 0 | 2 | 0 | 0 | 10 | 12 | 0 | 45 | 3 | 0 | 0 | 60 | 1 | 2 | 2 | 1 | 0 | 2 | 6 | 3 | 1 | 32 | 4 | 0 | 1 | 40 | 116 |
| Hourly Total | 12 | 13 | 2 | 8 | 0 | 2 | 35 | 33 | 1 | 212 | 13 | 0 | 2 | 259 | 4 | 10 | 8 | 9 | 0 | 13 | 31 | 14 | 1 | 138 | 18 | 1 | 6 | 172 | 497 |
| 5:00 PM | 2 | 0 | 0 | 3 | 0 | 1 | 5 | 4 | 0 | 41 | 1 | 0 | 0 | 46 | 0 | 2 | 1 | 1 | 0 | 1 | 4 | 1 | 0 | 37 | 2 | 0 | 0 | 40 | 95 |
| 5:15 PM | 3 | 0 | 1 | 2 | 0 | 0 | 6 | 6 | 0 | 45 | 0 | 0 | 1 | 51 | 1 | 1 | 1 | 1 | 0 | 1 | 4 | 1 | 0 | 18 | 0 | 0 | 1 | 19 | 80 |
| 5:30 PM | 3 | 1 | 0 | 1 | 0 | 0 | 5 | 10 | 0 | 29 | 1 | 0 | 1 | 40 | 0 | 1 | 1 | 1 | 0 | 3 | 3 | 1 | 0 | 26 | 3 | 1 | 0 | 31 | 79 |
| 5:45 PM | 2 | 1 | 1 | 0 | 0 | 1 | 4 | 6 | 0 | 29 | 1 | 0 | 0 | 36 | 0 | 1 | 1 | 1 | 0 | 1 | 3 | 1 | 0 | 18 | 1 | 0 | 5 | 20 | 63 |
| Hourly Total | 10 | 2 | 2 | 6 | 0 | 2 | 20 | 26 | 0 | 144 | 3 | 0 | 2 | 173 | 1 | 5 | 4 | 4 | 0 | 6 | 14 | 4 | 0 | 99 | 6 | 1 | 6 | 110 | 317 |
| 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Grand Total | 80 | 57 | 9 | 33 | 0 | 12 | 179 | 86 | 1 | 568 | 30 | 0 | 9 | 685 | 10 | 18 | 15 | 24 | 0 | 34 | 67 | 23 | 2 | 411 | 47 | 2 | 21 | 485 | 1416 |
| Approach % | 44.7 | 31.8 | 5.0 | 18.4 | 0.0 | - | - | 12.6 | 0.1 | 82.9 | 4.4 | 0.0 | - | - | 14.9 | 26.9 | 22.4 | 35.8 | 0.0 | - | - | 4.7 | 0.4 | 84.7 | 9.7 | 0.4 | - | - | - |
| Total % | 5.6 | 4.0 | 0.6 | 2.3 | 0.0 | - | 12.6 | 6.1 | 0.1 | 40.1 | 2.1 | 0.0 | - | 48.4 | 0.7 | 1.3 | 1.1 | 1.7 | 0.0 | - | 4.7 | 1.6 | 0.1 | 29.0 | 3.3 | 0.1 | - | 34.3 | - |
| Lights | 75 | 55 | 9 | 28 | 0 | - | 167 | 83 | 1 | 534 | 30 | 0 | - | 648 | 10 | 18 | 15 | 24 | 0 | - | 67 | 22 | 2 | 382 | 46 | 2 | - | 454 | 1336 |
| % Lights | 93.8 | 96.5 | 100.0 | 84.8 | - | - | 93.3 | 96.5 | 100.0 | 94.0 | 100.0 | - | - | 94.6 | 100.0 | 100.0 | 100.0 | 100.0 | - | - | 100.0 | 95.7 | 100.0 | 92.9 | 97.9 | 100.0 | - | 93.6 | 94.4 |
| Buses | 0 | 0 | 0 | 4 | 0 | - | 4 | 0 | 0 | 25 | 0 | 0 | - | 25 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 18 | 0 | 0 | - | 18 | 47 |
| % Buses | 0.0 | 0.0 | 0.0 | 12.1 | - | - | 2.2 | 0.0 | 0.0 | 4.4 | 0.0 | - | - | 3.6 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 4.4 | 0.0 | 0.0 | - | 3.7 | 3.3 |
| Trucks | 4 | 2 | 0 | 1 | 0 | - | 7 | 3 | 0 | 8 | 0 | 0 | - | 11 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 7 | 0 | 0 | - | 7 | 25 |
| % Trucks | 5.0 | 3.5 | 0.0 | 3.0 | - | - | 3.9 | 3.5 | 0.0 | 1.4 | 0.0 | - | - | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 1.7 | 0.0 | 0.0 | - | 1.4 | 1.8 |
| Bicycles on Road | 1 | 0 | 0 | 0 | 0 | - | 1 | 0 | 0 | 1 | 0 | 0 | - | 1 | 0 | 0 | 0 | 0 | 0 | - | 0 | 1 | 0 | 4 | 1 | 0 | - | 6 | 8 |
| % Bicycles on Road | 1.3 | 0.0 | 0.0 | 0.0 | - | - | 0.6 | 0.0 | 0.0 | 0.2 | 0.0 | - | - | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 4.3 | 0.0 | 1.0 | 2.1 | 0.0 | - | 1.2 | 0.6 |
| Bicycles on Crosswalk | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 1 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 2.9 | - | - | - | - | - | - | 4.8 | - | - |
| Pedestrians | - | - | - | - | - | 12 | - | - | - | - | - | - | 9 | - | - | - | - | - | - | 33 | - | - | - | - | - | - | 20 | - | - |
| % Pedestrians | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 97.1 | - | - | - | - | - | - | 95.2 | - | - |



Revised A - 109

Utica, NY
Seneca/Lafayette
Wednesday, July 18, 2018
Location: 43.102188, -75.230743

TRI-STATE TRAFFIC DATA
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Coatesville, Pennsylvania, United States 19320
610-466-1469 jvetterlein@tstdata.com
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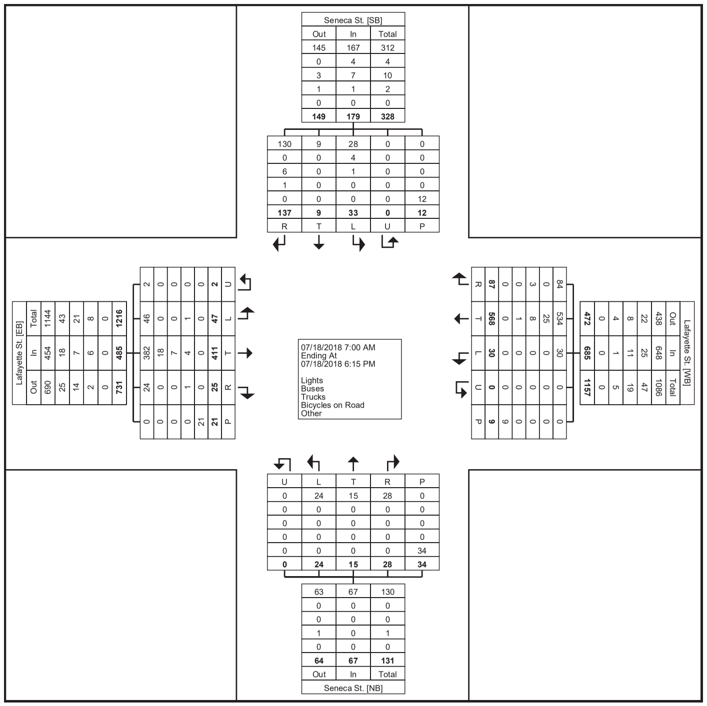
Count Name: 19. Seneca and Lafayette
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 2




Turning Movement Data Plot

Utica, NY
Seneca/Lafayette
Wednesday, July 18, 2018
Location: 43.102188, -75.230743

TRI-STATE TRAFFIC DATA
www.TSTData.com
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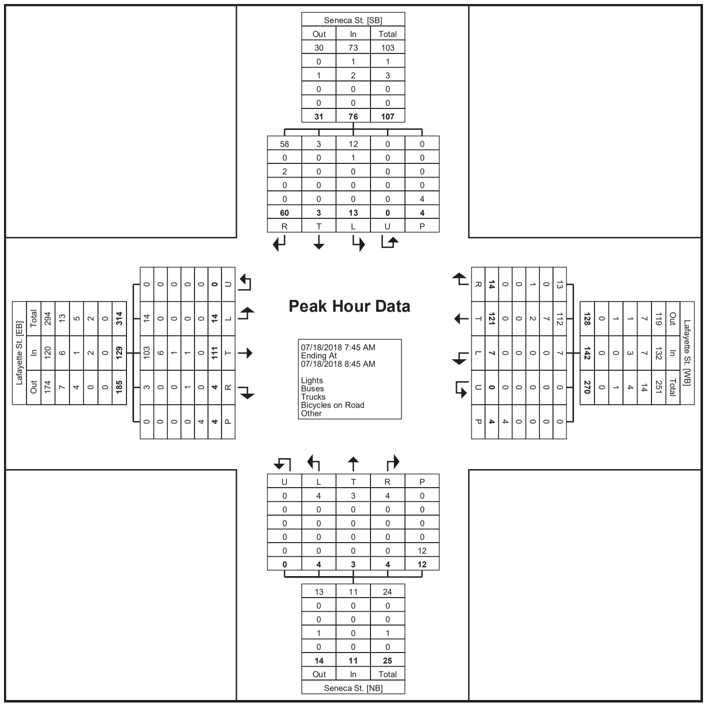
Coatesville, Pennsylvania, United States 19320
610-466-1469 jvetterlein@tstdata.com
Serving Transportation Professionals Since 1995

Count Name: 19. Seneca and Lafayette
Site Code: Utica, New York
Start Date: 07/18/2018
Page No: 3

## Turning Movement Peak Hour Data (7:45 AM)

| | Seneca St. Southbound | | | | | | | Lafayette St. Westbound | | | | | | | Seneca St. Northbound | | | | | | | Lafayette St. Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Int. Total |
| 7:45 AM | 13 | 2 | 1 | 5 | 0 | 0 | 21 | 5 | 0 | 36 | 2 | 0 | 0 | 43 | 0 | 0 | 0 | 2 | 0 | 4 | 2 | 0 | 0 | 22 | 3 | 0 | 1 | 25 | 91 |
| 8:00 AM | 4 | 7 | 2 | 4 | 0 | 2 | 17 | 3 | 0 | 27 | 4 | 0 | 4 | 34 | 1 | 2 | 2 | 2 | 0 | 0 | 7 | 1 | 0 | 29 | 5 | 0 | 0 | 35 | 93 |
| 8:15 AM | 10 | 10 | 0 | 1 | 0 | 2 | 21 | 4 | 0 | 31 | 0 | 0 | 0 | 35 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 1 | 0 | 27 | 4 | 0 | 1 | 32 | 88 |
| 8:30 AM | 5 | 9 | 0 | 3 | 0 | 0 | 17 | 2 | 0 | 27 | 1 | 0 | 0 | 30 | 0 | 1 | 1 | 0 | 0 | 3 | 2 | 1 | 1 | 33 | 2 | 0 | 2 | 37 | 86 |
| Total | 32 | 28 | 3 | 13 | 0 | 4 | 76 | 14 | 0 | 121 | 7 | 0 | 4 | 142 | 1 | 3 | 3 | 4 | 0 | 12 | 11 | 3 | 1 | 111 | 14 | 0 | 4 | 129 | 358 |
| Approach % | 42.1 | 36.8 | 3.9 | 17.1 | 0.0 | - | - | 9.9 | 0.0 | 85.2 | 4.9 | 0.0 | - | - | 9.1 | 27.3 | 27.3 | 36.4 | 0.0 | - | - | 2.3 | 0.8 | 86.0 | 10.9 | 0.0 | - | - | - |
| Total % | 8.9 | 7.8 | 0.8 | 3.6 | 0.0 | - | 21.2 | 3.9 | 0.0 | 33.8 | 2.0 | 0.0 | - | 39.7 | 0.3 | 0.8 | 0.8 | 1.1 | 0.0 | - | 3.1 | 0.8 | 0.3 | 31.0 | 3.9 | 0.0 | - | 36.0 | - |
| PHF | 0.615 | 0.700 | 0.375 | 0.650 | 0.000 | - | 0.905 | 0.700 | 0.000 | 0.840 | 0.438 | 0.000 | - | 0.826 | 0.250 | 0.375 | 0.375 | 0.500 | 0.000 | - | 0.393 | 0.750 | 0.250 | 0.841 | 0.700 | 0.000 | - | 0.872 | 0.962 |
| Lights | 31 | 27 | 3 | 12 | 0 | - | 73 | 13 | 0 | 112 | 7 | 0 | - | 132 | 1 | 3 | 3 | 4 | 0 | - | 11 | 2 | 1 | 103 | 14 | 0 | - | 120 | 336 |
| % Lights | 96.9 | 96.4 | 100.0 | 92.3 | - | - | 96.1 | 92.9 | - | 92.6 | 100.0 | - | - | 93.0 | 100.0 | 100.0 | 100.0 | 100.0 | - | - | 100.0 | 66.7 | 100.0 | 92.8 | 100.0 | - | - | 93.0 | 93.9 |
| Buses | 0 | 0 | 0 | 1 | 0 | - | 1 | 0 | 0 | 7 | 0 | 0 | - | 7 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 6 | 0 | 0 | - | 6 | 14 |
| % Buses | 0.0 | 0.0 | 0.0 | 7.7 | - | - | 1.3 | 0.0 | - | 5.8 | 0.0 | - | - | 4.9 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 5.4 | 0.0 | - | - | 4.7 | 3.9 |
| Trucks | 1 | 1 | 0 | 0 | 0 | - | 2 | 1 | 0 | 2 | 0 | 0 | - | 3 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 1 | 0 | 0 | - | 1 | 6 |
| % Trucks | 3.1 | 3.6 | 0.0 | 0.0 | - | - | 2.6 | 7.1 | - | 1.7 | 0.0 | - | - | 2.1 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.9 | 0.0 | - | - | 0.8 | 1.7 |
| Bicycles on Road | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 1 | 0 | 1 | 0 | 0 | - | 2 | 2 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | - | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 33.3 | 0.0 | 0.9 | 0.0 | - | - | 1.6 | 0.6 |
| Bicycles on Crosswalk | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 8.3 | - | - | - | - | - | - | 0.0 | - | - |
| Pedestrians | - | - | - | - | - | 4 | - | - | - | - | - | - | 4 | - | - | - | - | - | - | 11 | - | - | - | - | - | - | 4 | - | - |
| % Pedestrians | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 91.7 | - | - | - | - | - | - | 100.0 | - | - |

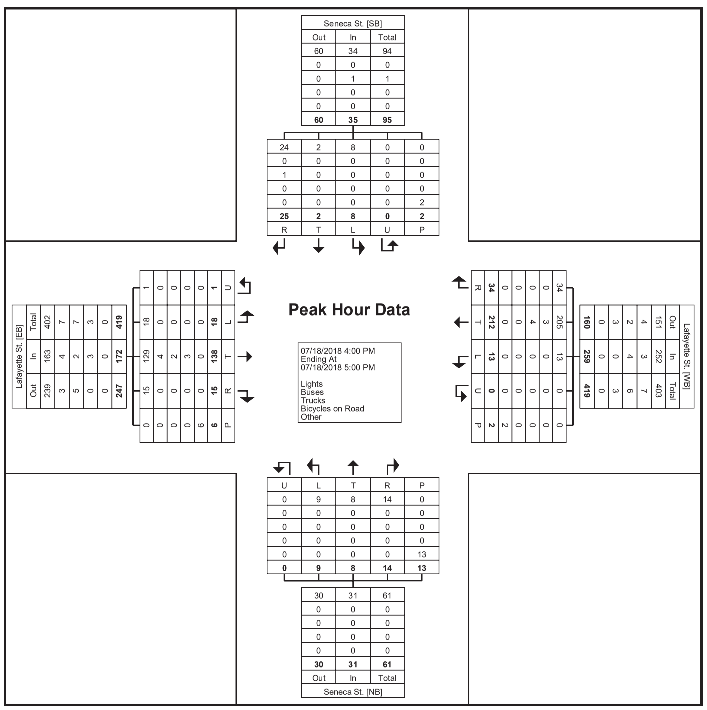



Turning Movement Peak Hour Data Plot (7:45 AM)



## Turning Movement Peak Hour Data (4:00 PM)

| | Seneca St. Southbound | | | | | | | Lafayette St. Westbound | | | | | | | Seneca St. Northbound | | | | | | | Lafayette St. Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Right | Right on Red | Thru | Left | U-Turn | Peds | App. Total | Int. Total |
| 4:00 PM | 2 | 4 | 0 | 2 | 0 | 1 | 8 | 9 | 1 | 57 | 7 | 0 | 1 | 74 | 1 | 2 | 5 | 2 | 0 | 5 | 10 | 5 | 0 | 36 | 2 | 0 | 1 | 43 | 135 |
| 4:15 PM | 2 | 4 | 1 | 0 | 0 | 1 | 7 | 3 | 0 | 51 | 3 | 0 | 0 | 57 | 0 | 2 | 0 | 5 | 0 | 4 | 7 | 5 | 0 | 33 | 5 | 1 | 1 | 44 | 115 |
| 4:30 PM | 3 | 2 | 1 | 4 | 0 | 0 | 10 | 9 | 0 | 59 | 0 | 0 | 1 | 68 | 2 | 4 | 1 | 1 | 0 | 2 | 8 | 1 | 0 | 37 | 7 | 0 | 3 | 45 | 131 |
| 4:45 PM | 5 | 3 | 0 | 2 | 0 | 0 | 10 | 12 | 0 | 45 | 3 | 0 | 0 | 60 | 1 | 2 | 2 | 1 | 0 | 2 | 6 | 3 | 1 | 32 | 4 | 0 | 1 | 40 | 116 |
| Total | 12 | 13 | 2 | 8 | 0 | 2 | 35 | 33 | 1 | 212 | 13 | 0 | 2 | 259 | 4 | 10 | 8 | 9 | 0 | 13 | 31 | 14 | 1 | 138 | 18 | 1 | 6 | 172 | 497 |
| Approach % | 34.3 | 37.1 | 5.7 | 22.9 | 0.0 | - | - | 12.7 | 0.4 | 81.9 | 5.0 | 0.0 | - | - | 12.9 | 32.3 | 25.8 | 29.0 | 0.0 | - | - | 8.1 | 0.6 | 80.2 | 10.5 | 0.6 | - | - | - |
| Total % | 2.4 | 2.6 | 0.4 | 1.6 | 0.0 | - | 7.0 | 6.6 | 0.2 | 42.7 | 2.6 | 0.0 | - | 52.1 | 0.8 | 2.0 | 1.6 | 1.8 | 0.0 | - | 6.2 | 2.8 | 0.2 | 27.8 | 3.6 | 0.2 | - | 34.6 | - |
| PHF | 0.600 | 0.813 | 0.500 | 0.500 | 0.000 | - | 0.875 | 0.688 | 0.250 | 0.898 | 0.464 | 0.000 | - | 0.875 | 0.500 | 0.625 | 0.400 | 0.450 | 0.000 | - | 0.775 | 0.700 | 0.250 | 0.932 | 0.643 | 0.250 | - | 0.956 | 0.920 |
| Lights | 12 | 12 | 2 | 8 | 0 | - | 34 | 33 | 1 | 205 | 13 | 0 | - | 252 | 4 | 10 | 8 | 9 | 0 | - | 31 | 14 | 1 | 129 | 18 | 1 | - | 163 | 480 |
| % Lights | 100.0 | 92.3 | 100.0 | 100.0 | - | - | 97.1 | 100.0 | 100.0 | 96.7 | 100.0 | - | - | 97.3 | 100.0 | 100.0 | 100.0 | 100.0 | - | - | 100.0 | 100.0 | 100.0 | 93.5 | 100.0 | 100.0 | - | 94.8 | 96.6 |
| Buses | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 3 | 0 | 0 | - | 3 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 4 | 0 | 0 | - | 4 | 7 |
| % Buses | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 1.4 | 0.0 | - | - | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 2.9 | 0.0 | 0.0 | - | 2.3 | 1.4 |
| Trucks | 0 | 1 | 0 | 0 | 0 | - | 1 | 0 | 0 | 4 | 0 | 0 | - | 4 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 2 | 0 | 0 | - | 2 | 7 |
| % Trucks | 0.0 | 7.7 | 0.0 | 0.0 | - | - | 2.9 | 0.0 | 0.0 | 1.9 | 0.0 | - | - | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 1.4 | 0.0 | 0.0 | - | 1.2 | 1.4 |
| Bicycles on Road | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 3 | 0 | 0 | - | 3 | 3 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 2.2 | 0.0 | 0.0 | - | 1.7 | 0.6 |
| Bicycles on Crosswalk | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 1 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 16.7 | - | - |
| Pedestrians | - | - | - | - | - | 2 | - | - | - | - | - | - | 2 | - | - | - | - | - | - | 13 | - | - | - | - | - | - | 5 | - | - |
| % Pedestrians | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 83.3 | - | - |



Turning Movement Peak Hour Data Plot (4:00 PM)

## 20. Genesee and Liberty - TMC

Thu Jul 19, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549122, Location: 43.102833, -75.228108, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Genesee St. | | | | | | | Oriskany St. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Southbound | | | | | | | Westbound | | | | | | |
| Time | R | T | L | U | RR | App | Ped* | R | T | L | U | RR | App | Ped* |
| 2018-07-19 7:00AM | 12 | 275 | 0 | 0 | 35 | **155** | 1 | 1 | 924 | 3 | 0 | 2 | **712** | 2 |
| 8:00AM | 43 | 377 | 0 | 0 | 21 | **004** | 2 | 6 | 839 | 2 | 0 | 2 | **307** | 6 |
| 9:00AM | 0 | 0 | 0 | 0 | 0 | **2** | 0 | 0 | 1 | 0 | 0 | 0 | **4** | 0 |
| 4:00PM | 41 | 362 | 0 | 0 | 15 | **043** | 5 | 8 | 823 | 1 | 0 | 1 | **311** | 5 |
| 5:00PM | 34 | 311 | 0 | 0 | 19 | **190** | 4 | 10 | 743 | 0 | 0 | 0 | **861** | 10 |
| 6:00PM | 0 | 0 | 0 | 0 | 0 | **2** | 0 | 0 | 0 | 0 | 0 | 0 | **2** | 0 |
| **Total** | 130 | 1325 | 0 | 0 | 90 | **4606** | 12 | 25 | 3330 | 6 | 0 | 5 | **1199** | 23 |
| **% Approach** | 8.4% | 85.8% | 0% | 0% | 5.8% | - | - | 0.7% | 98.9% | 0.2% | 0% | 0.1% | - | - |
| **% Total** | 2.2% | 22.7% | 0% | 0% | 1.5% | **59.0%** | - | 0.4% | 57.0% | 0.1% | 0% | 0.1% | **68.9%** | - |
| **Lights** | 123 | 1284 | 0 | 0 | 86 | **4071** | - | 24 | 3166 | 5 | 0 | 5 | **1522** | - |
| **% Lights** | 94.6% | 96.9% | 0% | 0% | 95.6% | **79.9%** | - | 96.0% | 95.1% | 83.3% | 0% | 100% | **76.4%** | - |
| **Articulated Trucks and Single-Unit Trucks** | 4 | 32 | 0 | 0 | 1 | **18** | - | 1 | 144 | 0 | 0 | 0 | **406** | - |
| **% Articulated Trucks and Single-Unit Trucks** | 3.1% | 2.4% | 0% | 0% | 1.1% | **5.0%** | - | 4.0% | 4.3% | 0% | 0% | 0% | **0.1%** | - |
| **Buses** | 3 | 8 | 0 | 0 | 3 | **40** | - | 0 | 20 | 1 | 0 | 0 | **54** | - |
| **% Buses** | 2.3% | 0.6% | 0% | 0% | 3.3% | **2.7%** | - | 0% | 0.6% | 16.7% | 0% | 0% | **2.9%** | - |
| **Bicycles on Road** | 0 | 1 | 0 | 0 | 0 | **4** | - | 0 | 0 | 0 | 0 | 0 | **2** | - |
| **% Bicycles on Road** | 0% | 0.1% | 0% | 0% | 0% | **2.4%** | - | 0% | 0% | 0% | 0% | 0% | **2%** | - |
| Pedestrians | - | - | - | - | - | - | 9 | - | - | - | - | - | - | 21 |
| % Pedestrians | - | - | - | - | - | - | 75.0% | - | - | - | - | - | - | 91.3% |
| Bicycles on Crosswalk | - | - | - | - | - | - | 3 | - | - | - | - | - | - | 2 |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 25.0% | - | - | - | - | - | - | 8.7% |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn



## 20. Genesee and Liberty - TMC

Thu Jul 19, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549122, Location: 43.102833, -75.228108, Site Code: Utica, New York

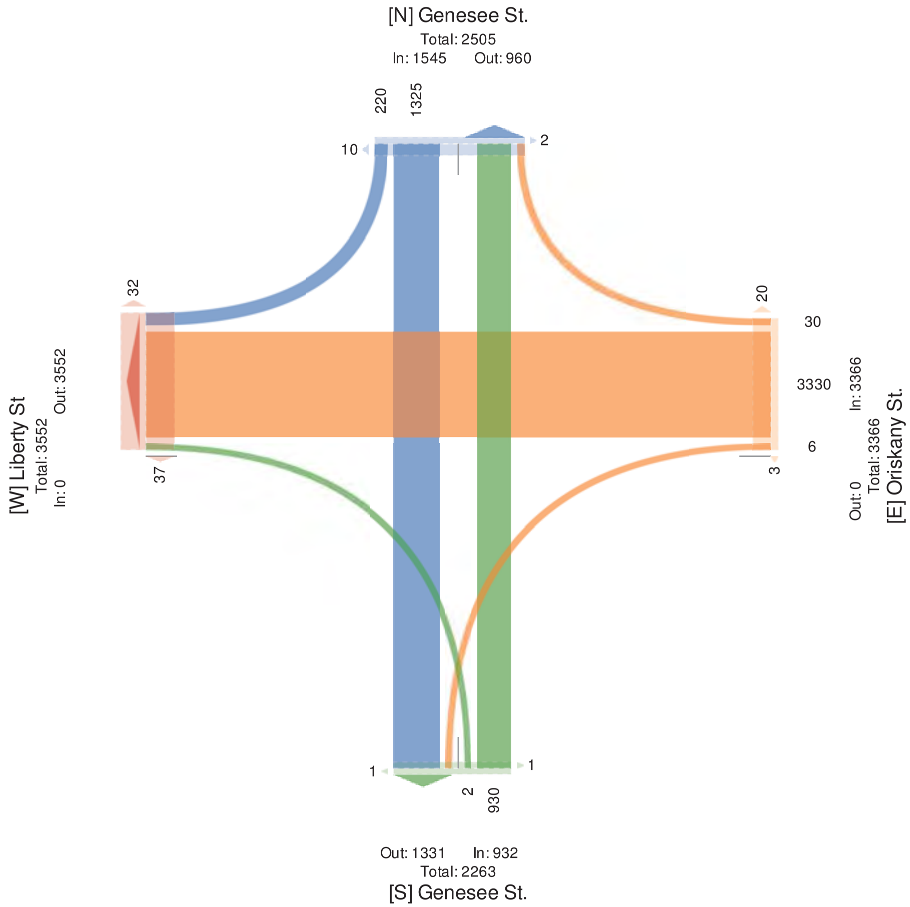
Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Genesee St. | | | | | | Liberty St | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Northbound | | | | | | Eastbound | | | | | | |
| Time | R | T | L | U | App | Ped* | R | T | L | U | App | Ped* | Int |
| 2018-07-19 7:00AM | 0 | 120 | 1 | 0 | **161** | 1 | 0 | 0 | 0 | 0 | **2** | 14 | **1858** |
| 8:00AM | 0 | 156 | 1 | 0 | **145** | 0 | 0 | 0 | 0 | 0 | **2** | 9 | **1335** |
| 9:00AM | 0 | 0 | 0 | 0 | **2** | 0 | 0 | 0 | 0 | 0 | **2** | 0 | **1** |
| 4:00PM | 0 | 360 | 0 | 0 | **892** | 1 | 0 | 0 | 0 | 0 | **2** | 28 | **1911** |
| 5:00PM | 0 | 294 | 0 | 0 | **673** | 0 | 0 | 0 | 0 | 0 | **2** | 18 | **1311** |
| 6:00PM | 0 | 0 | 0 | 0 | **2** | 0 | 0 | 0 | 0 | 0 | **2** | 0 | **2** |
| **0 Ttoa** | 0 | 930 | 2 | 0 | **786** | 2 | 0 | 0 | 0 | 0 | **2** | 69 | **4138** |
| **% ApprToch** | 0% | 99.8% | 0.2% | 0% | - | - | 0% | 0% | 0% | 0% | - | - | - |
| **% 0 Ttoa** | 0% | 15.9% | 0% | 0% | **19.2%** | - | 0% | 0% | 0% | 0% | **2%** | - | - |
| **Lights** | 0 | 896 | 2 | 0 | **171** | - | 0 | 0 | 0 | 0 | **2** | - | 5591 |
| **% Lights** | 0% | 96.3% | 100% | 0% | **79.3%** | - | 0% | 0% | 0% | 0% | - | - | 95.7% |
| **Articuaэted 0 rucks ond Singæ-Unit 0 rucks** | 0 | 15 | 0 | 0 | **14** | - | 0 | 0 | 0 | 0 | **2** | - | 197 |
| **% Articuaэted 0 rucks ond Singæ-Unit 0 rucks** | 0% | 1.6% | 0% | 0% | **1.9%** | - | 0% | 0% | 0% | 0% | - | - | 3.4% |
| **Buses** | 0 | 14 | 0 | 0 | **13** | - | 0 | 0 | 0 | 0 | **2** | - | 49 |
| **% Buses** | 0% | 1.5% | 0% | 0% | **1.4%** | - | 0% | 0% | 0% | 0% | - | - | 0.8% |
| **Bicycæs Tn RTod** | 0 | 5 | 0 | 0 | **4** | - | 0 | 0 | 0 | 0 | **2** | - | 6 |
| **% Bicycæs Tn RTod** | 0% | 0.5% | 0% | 0% | **2.4%** | - | 0% | 0% | 0% | 0% | - | - | 0.1% |
| Pedestrians | - | - | - | - | - | 2 | - | - | - | - | - | 62 | |
| % Pedestrians | - | - | - | - | - | 100% | - | - | - | - | - | 89.9% | - |
| Bicycles on Crosswalk | - | - | - | - | - | 0 | - | - | - | - | - | 7 | |
| % Bicycles on Crosswalk | - | - | - | - | - | 0% | - | - | - | - | - | 10.1% | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

**20. Genesee and Liberty - TMC**
Thu Jul 19, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549122, Location: 43.102833, -75.228108, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US






**20. Genesee and Liberty - TMC**
Thu Jul 19, 2018
AM Peak (7:30AM - 8:30AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549122, Location: 43.102833, -75.228108, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Genesee St. | | | | | | | Oriskany St. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Southbound | | | | | | | Westbound | | | | | | |
| Time | R | T | L | U | RR | App | Ped* | R | T | L | U | RR | App | Ped* |
| 2018-07-19 7:30AM | 1 | 65 | 0 | 0 | 11 | **22** | 1 | 0 | 263 | 0 | 0 | 1 | **403** | 0 |
| 7:45AM | 4 | 99 | 0 | 0 | 11 | **773** | 0 | 1 | 289 | 2 | 0 | 0 | **494** | 2 |
| 8:00AM | 17 | 96 | 0 | 0 | 4 | **772** | 0 | 1 | 242 | 0 | 0 | 0 | **431** | 2 |
| 8:15AM | 7 | 92 | 0 | 0 | 7 | **750** | 0 | 1 | 212 | 1 | 0 | 0 | **473** | 0 |
| **6 Tot a** | 29 | 352 | 0 | 0 | 33 | **373** | 1 | 3 | 1006 | 3 | 0 | 1 | **7571** | 4 |
| **l %App Tt r c** | 7.0% | 85.0% | 0% | 0% | 8.0% | **h** | - | 0.3% | 99.3% | 0.3% | 0% | 0.1% | **h** | - |
| **l % Tot a** | 1.9% | 22.6% | 0% | 0% | 2.1% | **40-0l** | - | 0.2% | 64.5% | 0.2% | 0% | 0.1% | **08-5l** | - |
| **. PH** | 0.426 | 0.889 | - | - | 0.750 | **5-FF8** | - | 0.750 | 0.870 | 0.375 | - | 0.250 | **5-F02** | - |
| **Ligcos** | 28 | 334 | 0 | 0 | 32 | **193** | - | 2 | 947 | 3 | 0 | 1 | **981** | - |
| **l %Ligcos** | 96.6% | 94.9% | 0% | 0% | 97.0% | **98-4l** | - | 66.7% | 94.1% | 100% | 0% | 100% | **93-7l** | - |
| **A diruat ed% urks%nd%ingaelUnio% urks** | 1 | 17 | 0 | 0 | 0 | **7F** | - | 1 | 48 | 0 | 0 | 0 | **39** | - |
| **l %A diruat ed% urks%nd%ingaelUnio% urks** | 3.4% | 4.8% | 0% | 0% | 0% | **3-1l** | - | 33.3% | 4.8% | 0% | 0% | 0% | **3-Fl** | - |
| **Buses** | 0 | 1 | 0 | 0 | 1 | **4** | - | 0 | 11 | 0 | 0 | 0 | **77** | - |
| **l %Buses** | 0% | 0.3% | 0% | 0% | 3.0% | **5-8l** | - | 0% | 1.1% | 0% | 0% | 0% | **7-7l** | - |
| **Biryraes %n %RTtd** | 0 | 0 | 0 | 0 | 0 | **5** | - | 0 | 0 | 0 | 0 | 0 | **5** | - |
| **l %Biryraes %n %RTtd** | 0% | 0% | 0% | 0% | 0% | **5l** | - | 0% | 0% | 0% | 0% | 0% | **5l** | - |
| Pedestrians | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 4 |
| % Pedestrians | - | - | - | - | - | - | 100% | - | - | - | - | - | - | 100% |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 0% | - | - | - | - | - | - | 0% |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

## 20. Genesee and Liberty - TMC

Thu Jul 19, 2018
AM Peak (7:30AM - 8:30AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549122, Location: 43.102833, -75.228108, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Genesee St. | | | | | | Liberty St | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Northbound | | | | | | Eastbound | | | | | | |
| Time | R | T | L | U | App | Ped* | R | T | L | U | App | Ped* | Int |
| 2018-07-19 7:30AM | 0 | 27 | 0 | 0 | **25** | 0 | 0 | 0 | 0 | 0 | **1** | 3 | **748** |
| 7:45AM | 0 | 35 | 1 | 0 | **74** | 0 | 0 | 0 | 0 | 0 | **1** | 2 | **002** |
| 8:00AM | 0 | 34 | 0 | 0 | **70** | 0 | 0 | 0 | 0 | 0 | **1** | 1 | **730** |
| 8:15AM | 0 | 35 | 0 | 0 | **76** | 0 | 0 | 0 | 0 | 0 | **1** | 1 | **766** |
| **9 Ttoa** | 0 | 131 | 1 | 0 | **172** | 0 | 0 | 0 | 0 | 0 | **1** | 7 | **1663** |
| **% ApprToch** | 0% | 99.2% | 0.8% | 0% | - | - | 0% | 0% | 0% | 0% | - | - | - |
| **% 9 Ttoa** | 0% | 8.4% | 0.1% | 0% | **8.6%** | - | 0% | 0% | 0% | 0% | **1%** | - | - |
| **PHF** | - | 0.936 | 0.250 | - | **1.315** | - | - | - | - | - | - | - | 0.882 |
| **Lights** | 0 | 119 | 1 | 0 | **121** | - | 0 | 0 | 0 | 0 | **1** | - | 1467 |
| **% Lights** | 0% | 90.8% | 100% | 0% | **31.3%** | - | 0% | 0% | 0% | 0% | - | - | 94.1% |
| **Articuated 9 rucks ond Singæ-Unit 9 rucks** | 0 | 8 | 0 | 0 | **8** | - | 0 | 0 | 0 | 0 | **1** | - | 75 |
| **% Articuated 9 rucks ond Singæ-Unit 9 rucks** | 0% | 6.1% | 0% | 0% | **4.1%** | - | 0% | 0% | 0% | 0% | - | - | 4.8% |
| **Buses** | 0 | 3 | 0 | 0 | **7** | - | 0 | 0 | 0 | 0 | **1** | - | 16 |
| **% Buses** | 0% | 2.3% | 0% | 0% | **2.7%** | - | 0% | 0% | 0% | 0% | - | - | 1.0% |
| **Bicycæs Tn RTod** | 0 | 1 | 0 | 0 | **1** | - | 0 | 0 | 0 | 0 | **1** | - | 1 |
| **% Bicycæs Tn RTod** | 0% | 0.8% | 0% | 0% | **1.8%** | - | 0% | 0% | 0% | 0% | - | - | 0.1% |
| Pedestrians | - | - | - | - | - | 0 | - | - | - | - | - | 6 | |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | 85.7% | - |
| Bicycles on Crosswalk | - | - | - | - | - | 0 | - | - | - | - | - | 1 | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | 14.3% | - |

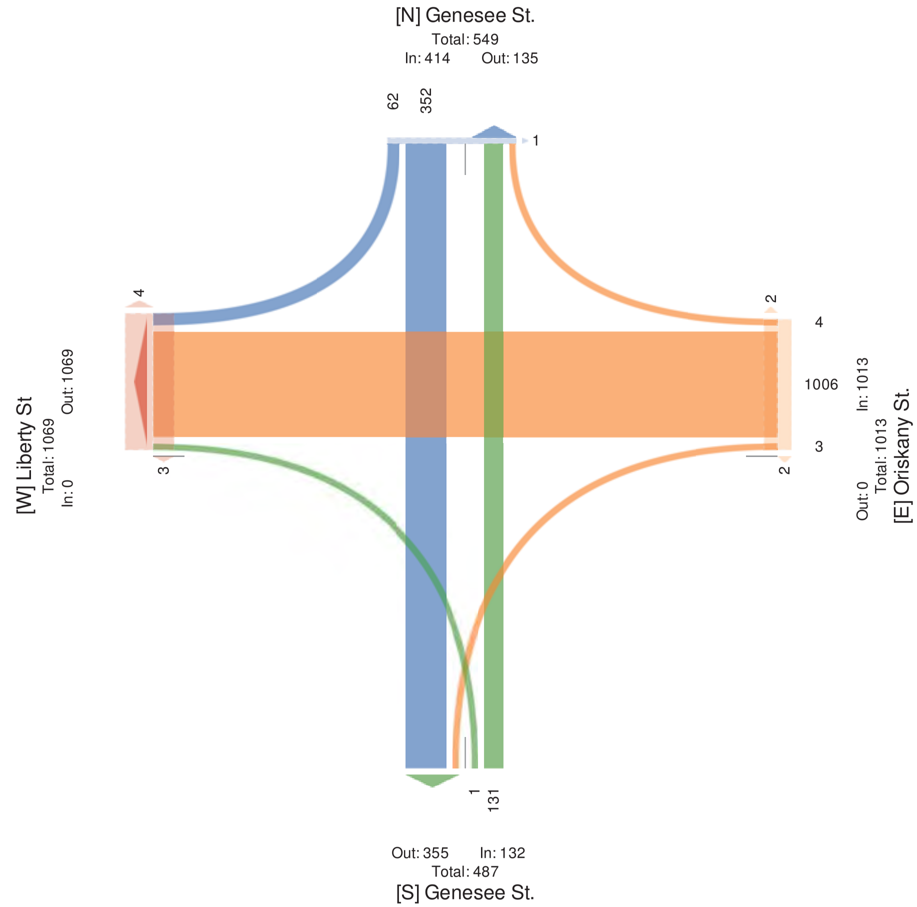
*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn



## 20. Genesee and Liberty - TMC

Thu Jul 19, 2018
AM Peak (7:30AM - 8:30AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549122, Location: 43.102833, -75.228108, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US



## 20. Genesee and Liberty - TMC

Thu Jul 19, 2018
FLengt ( g7AM4P6) C a84P6) C s
) lli l7rrgr MdckhSr, ) eSdhul7Sgt TeunAr 7Ut BdUklgay UdSTeunAr, ourgr, ( gt grSed7Ur, odhRnlgr LUwL7t , odhRnlgr LUi eLrrv 7lAs
) ll C LmgI gUSr
D 46P9122, cLn7SdLU4P53102855, a-63228108, BdSg i Lt g4y Sdh7, . gv NLeA

( eLmd gt YR4TedaBS7Sg Te7bdh
: 7S7, DUh3
18P o 7Age wL7t ,
i L7Sgr mdlg, ( ) , 19520, y B

| c gk : degnSdLU | f gUgr gg BS3 BLuSh YLuUt | | | | | | | Gedr A7UR BS3 O gr SYLuUt | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tdl g | w | T | c | y | ww | App | ( gt W | w | T | c | y | ww | App | ( gt W |
| 2018a0- a19 - 4P6) C | P | 99 | 0 | 0 | 11 | 224 | 0 | 1 | 289 | 2 | 0 | 0 | 030 | 2 |
| 8400) C | 1- | 9* | 0 | 0 | P | 227 | 0 | 1 | 2P2 | 0 | 0 | 0 | 049 | 2 |
| 8416) C | - | 92 | 0 | 0 | - | 215 | 0 | 1 | 212 | 1 | 0 | 0 | 024 | 0 |
| 8450) C | 9 | 9- | 0 | 0 | - | 229 | 0 | 5 | 19- | 1 | 0 | 1 | 010 | 1 |
| 6 1ota | 5- | 58P | 0 | 0 | 29 | 411 | 0 | * | 9P0 | P | 0 | 1 | 312 | 6 |
| % ApprTt ch | 832% | 8635% | 0% | 0% | *3P% | - | a | 03*% | 9838% | 03P% | 0% | 031% | - | a |
| % 6 Tota | 23P% | 2P38% | 0% | 0% | 139% | 0382% | a | 03P% | *03-% | 035% | 0% | 031% | 5284 % | a |
| . PH | 036PP | 039-0 | a | a | 03*69 | 18350 | a | 03600 | 03815 | 03600 | a | 03260 | 18F24 | a |
| Lighos | 56 | 5*5 | 0 | 0 | 28 | 405 | a | 6 | 88- | P | 0 | 1 | F37 | a |
| % Lighos | 9P3*% | 9P36% | 0% | 0% | 9*3*% | 3487% | a | 8535% | 9P3P% | 100% | 0% | 100% | 3489% | a |
| Ardcuat ed 6 rucks t nd Singæ-Unio6 rucks | 2 | 19 | 0 | 0 | 0 | 02 | a | 1 | P8 | 0 | 0 | 0 | 43 | a |
| % Ardcuat ed 6 rucks t nd Singæ-Unio6 rucks | 63P% | P39% | 0% | 0% | 0% | 487% | a | 1*3-% | 631% | 0% | 0% | 0% | 180% | a |
| Buses | 0 | 2 | 0 | 0 | 1 | 9 | a | 0 | 6 | 0 | 0 | 0 | l | a |
| % Buses | 0% | 036% | 0% | 0% | 53P% | 187% | a | 0% | 036% | 0% | 0% | 0% | 181 % | a |
| Bicycæs Tn RTt d | 0 | 0 | 0 | 0 | 0 | 1 | a | 0 | 0 | 0 | 0 | 0 | 1 | a |
| % Bicycæs Tn RTt d | 0% | 0% | 0% | 0% | 0% | 1% | a | 0% | 0% | 0% | 0% | 0% | 1% | a |
| ( gt grSed7Ur | a | a | a | a | a | a | 0 | a | a | a | a | a | a | 6 |
| % ( gt grSed7Ur | a | a | a | a | a | a | a | a | a | a | a | a | a | 100% |
| odhRnlgr LUi eLrrv 7lA | a | a | a | a | a | a | 0 | a | a | a | a | a | a | 0 |
| % odhRnlgr LUi eLrrv 7lA | a | a | a | a | a | a | a | a | a | a | a | a | a | 0% |

W( gt grSed7Ur 7Ut odhRnlgr LUi eLrrv 7lA3c4cgbS, w4wdkhS, ww4wdkhSLUegt , T4Theu, y 4y aTueU



## 20. Genesee and Liberty - TMC

Thu Jul 19, 2018
FLengt ( g7AM4P6) C a84P6) C s
) lli l7rrgr MdckhSr, ) eSdhul7Sgt TeunAr 7Ut BdUklgay UdSTeunAr, ourgr, ( gt grSed7Ur, odhRnlgr LUwL7t , odhRnlgr LUi eLrrv 7lAs
) ll C LmgI gUSr
D 46P9122, cLn7SdLU4P53102855, a-63228108, BdSg i Lt g4y Sdh7, . gv NLeA

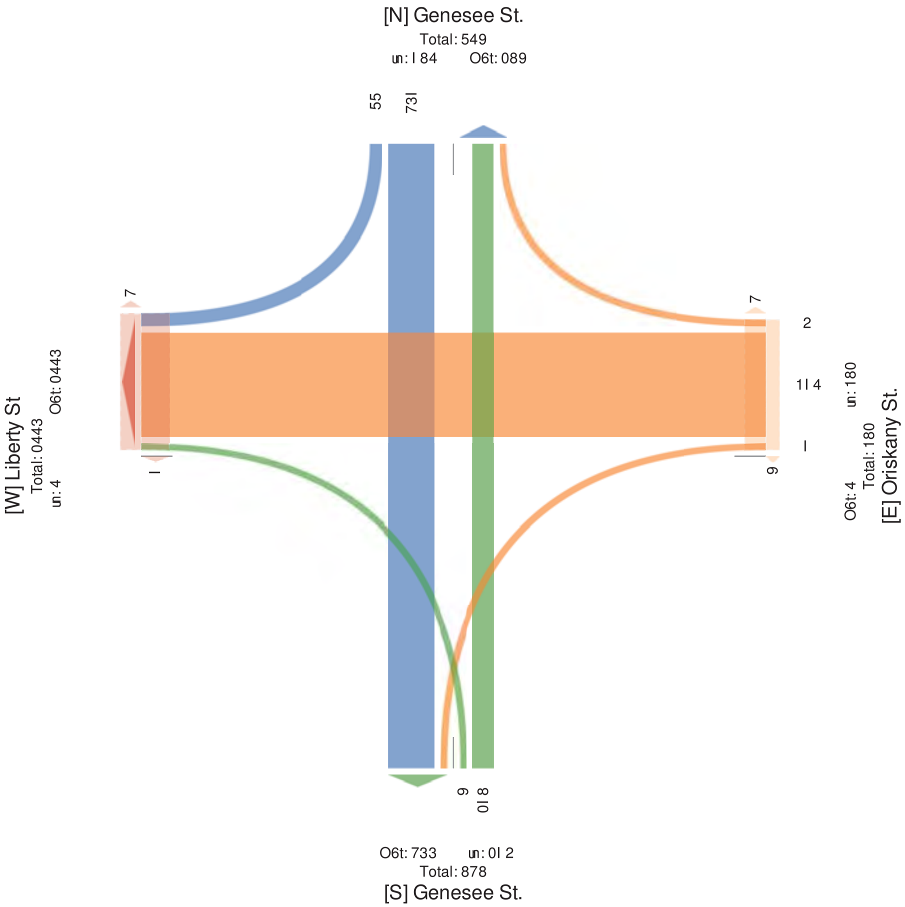
( eLmd gt YR4TedaBS7Sg Te7bdh
: 7S7, DUh3
18P o 7Age wL7t ,
i L7Sgr mdlg, ( ) , 19520, y B

| c gk : degnSdLU | f gUgr gg BS3 . LeSh YLuUt | | | | | | cdYgeSR BS G7r SYLuUt | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tdl g | w | T | c | y | App | ( gt E | w | T | c | y | App | ( gt E | Int |
| 2018a0- a19 - 4P6) C | 0 | 56 | 1 | 0 | 25 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 774 |
| 8400) C | 0 | 5P | 0 | 0 | 27 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 287 |
| 8416) C | 0 | 56 | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 200 |
| 8450) C | 0 | P1 | 1 | 0 | 74 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 203 |
| 6 9tıc | 0 | 1P6 | 2 | 0 | a73 | 0 | 0 | 0 | 0 | 0 | 1 | - | a071 |
| % Appr9Tch | 0* | 983%* | 13P* | 0* | - | a | 0* | 0* | 0* | 0* | - | a | a |
| % 6 9tTo | 0* | 93P* | 031* | 0* | 8.0% | a | 0* | 0* | 0* | 0* | 1% | a | a |
| PHF | a | 0388P | 03600 | a | 1.l30 | a | a | a | a | a | - | a | 038-% |
| Lights | 0 | 15% | 2 | 0 | a2l | a | 0 | 0 | 0 | 0 | 1 | a | 1P%1 |
| % Lights | 0* | 9538* | 100* | 0* | 82.8% | a | 0* | 0* | 0* | 0* | - | a | 9P3P* |
| ArticuoTted 6 rucks Tnd Singœ-Unit 6 rucks | 0 | P | 0 | 0 | 7 | a | 0 | 0 | 0 | 0 | 1 | a | -P |
| % ArticuoTted 6 rucks Tnd Singœ-Unit 6 rucks | 0* | 238* | 0* | 0* | 4.3% | a | 0* | 0* | 0* | 0* | - | a | P38* |
| Buses | 0 | P | 0 | 0 | 7 | a | 0 | 0 | 0 | 0 | 1 | a | 12 |
| % Buses | 0* | 238* | 0* | 0* | 4.3% | a | 0* | 0* | 0* | 0* | - | a | 038* |
| Bicycœs 9n R9Td | 0 | 1 | 0 | 0 | a | a | 0 | 0 | 0 | 0 | 1 | a | 1 |
| % Bicycœs 9n R9Td | 0* | 03-* | 0* | 0* | 1.3% | a | 0* | 0* | 0* | 0* | - | a | 031* |
| ( gt grSed7Ur | a | a | a | a | a | 0 | a | a | a | a | a | % | |
| * ( gt grSed7Ur | a | a | a | a | a | a | a | a | a | a | a | 863-* | a |
| odhRnlgr LUi eLrrv 7lA | a | a | a | a | a | 0 | a | a | a | a | a | 1 | |
| * odhRnlgr LUi eLrrv 7lA | a | a | a | a | a | a | a | a | a | a | a | 1P35* | a |

E( gt grSed7Ur 7Ut odhRnlgr LUi eLrrv 7lA3c4cgbS, w4wdkhS, ww4wdkhSLUegt , T4Theu, y 4y aTueU

**20. Genesee and Liberty - TMC**
Thu Jul 19, 2018
Forced Peak (7:45AM - 8:45AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549122, Location: 43.102833, -75.228108, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US






**20. Genesee and Liberty - TMC**
Thu Jul 19, 2018
PM Peak (4:15PM - 5:15PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549122, Location: 43.102833, -75.228108, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Genesee St. | | | | | | | Oriskany St. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Southbound | | | | | | | Westbound | | | | | | |
| Time | R | T | L | U | RR | App | Ped* | R | T | L | U | RR | App | Ped* |
| 2018-07-19 4:15PM | 8 | 101 | 0 | 0 | 4 | **224** | 2 | 1 | 189 | 0 | 0 | 0 | **203** | 1 |
| 4:30PM | 15 | 76 | 0 | 0 | 5 | **07** | 0 | 2 | 216 | 0 | 0 | 0 | **921** | 1 |
| 4:45PM | 5 | 88 | 0 | 0 | 1 | **05** | 2 | 1 | 189 | 0 | 0 | 0 | **203** | 2 |
| 5:00PM | 11 | 99 | 0 | 0 | 5 | **226** | 1 | 5 | 217 | 0 | 0 | 0 | **999** | 0 |
| **Total** | 39 | 364 | 0 | 0 | 15 | **521** | 5 | 9 | 811 | 0 | 0 | 0 | **193** | 4 |
| **% Approach** | 9.3% | 87.1% | 0% | 0% | 3.6% | - | - | 1.1% | 98.9% | 0% | 0% | 0% | - | - |
| **% Total** | 2.4% | 22.6% | 0% | 0% | 0.9% | **9680%** | - | 0.6% | 50.3% | 0% | 0% | 0% | **6381%** | - |
| **. PH** | 0.650 | 0.901 | - | - | 0.750 | **38030** | - | 0.450 | 0.934 | - | - | - | **38094** | - |
| **Fli htg** | 37 | 359 | 0 | 0 | 15 | **522** | - | 9 | 783 | 0 | 0 | 0 | **s09** | - |
| **% Fli htg** | 94.9% | 98.6% | 0% | 0% | 100% | **0184%** | - | 100% | 96.5% | 0% | 0% | 0% | **0787%** | - |
| **Artlculated Truckg and Slni le-Unlt Truckg** | 1 | 2 | 0 | 0 | 0 | **4** | - | 0 | 26 | 0 | 0 | 0 | **97** | - |
| **% Artlculated Truckg and Slni le-Unlt Truckg** | 2.6% | 0.5% | 0% | 0% | 0% | **38s%** | - | 0% | 3.2% | 0% | 0% | 0% | **489%** | - |
| **Bugeg** | 1 | 3 | 0 | 0 | 0 | **5** | - | 0 | 2 | 0 | 0 | 0 | **9** | - |
| **% Bugeg** | 2.6% | 0.8% | 0% | 0% | 0% | **283%** | - | 0% | 0.2% | 0% | 0% | 0% | **389%** | - |
| **Blcycleg on Road** | 0 | 0 | 0 | 0 | 0 | **3** | - | 0 | 0 | 0 | 0 | 0 | **3** | - |
| **% Blcycleg on Road** | 0% | 0% | 0% | 0% | 0% | **3%** | - | 0% | 0% | 0% | 0% | 0% | **3%** | - |
| Pedestrians | - | - | - | - | - | - | 4 | - | - | - | - | - | - | 3 |
| % Pedestrians | - | - | - | - | - | - | 80.0% | - | - | - | - | - | - | 75.0% |
| Bicycles on Crosswalk | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 1 |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 20.0% | - | - | - | - | - | - | 25.0% |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

**20. Genesee and Liberty - TMC**
Thu Jul 19, 2018
PM Peak (4:15PM - 5:15PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549122, Location: 43.102833, -75.228108, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Genesee St. | | | | | | Liberty St | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Northbound | | | | | | Eastbound | | | | | | |
| Time | R | T | L | U | App | Ped* | R | T | L | U | App | Ped* | Int |
| 2018-07-19 4:15PM | 0 | 87 | 0 | 0 | 25 | 0 | 0 | 0 | 0 | 0 | 1 | 8 | 741 |
| 4:30PM | 0 | 94 | 0 | 0 | 48 | 0 | 0 | 0 | 0 | 0 | 1 | 9 | 812 |
| 4:45PM | 0 | 95 | 0 | 0 | 40 | 1 | 0 | 0 | 0 | 0 | 1 | 9 | 754 |
| 5:00PM | 0 | 99 | 0 | 0 | 44 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 873 |
| 6 9tTo | 0 | 375 | 0 | 0 | 750 | 1 | 0 | 0 | 0 | 0 | 1 | 31 | a3a7 |
| l %App 9Trc | 0% | 100% | 0% | 0% | h | - | 0% | 0% | 0% | 0% | h | - | - |
| l %9tTo | 0% | 23.2% | 0% | 0% | -7.-l | - | 0% | 0% | 0% | 0% | 1l | - | - |
| PHF | - | 0.947 | - | - | 1.485 | - | - | - | - | - | h | - | 0.925 |
| Ligcts | 0 | 370 | 0 | 0 | 751 | - | 0 | 0 | 0 | 0 | 1 | - | 1573 |
| l %Ligcts | 0% | 98.7% | 0% | 0% | 42.5l | - | 0% | 0% | 0% | 0% | h | - | 97.5% |
| A tiruoTted% urks%nd%ingoeUnit% urks | 0 | 2 | 0 | 0 | - | - | 0 | 0 | 0 | 0 | 1 | - | 31 |
| l %A tiruoTted% urks%nd%ingoeUnit% urks | 0% | 0.5% | 0% | 0% | 1.0l | - | 0% | 0% | 0% | 0% | h | - | 1.9% |
| Buses | 0 | 2 | 0 | 0 | - | - | 0 | 0 | 0 | 0 | 1 | - | 8 |
| l %Buses | 0% | 0.5% | 0% | 0% | 1.0l | - | 0% | 0% | 0% | 0% | h | - | 0.5% |
| Biryrces%n%R9Td | 0 | 1 | 0 | 0 | a | - | 0 | 0 | 0 | 0 | 1 | - | 1 |
| l %Biryrces%n%R9Td | 0% | 0.3% | 0% | 0% | 1.7l | - | 0% | 0% | 0% | 0% | h | - | 0.1% |
| Pedestrians | - | - | - | - | - | 1 | - | - | - | - | - | 27 | |
| % Pedestrians | - | - | - | - | - | 100% | - | - | - | - | - | 87.1% | - |
| Bicycles on Crosswalk | - | - | - | - | - | 0 | - | - | - | - | - | 4 | |
| % Bicycles on Crosswalk | - | - | - | - | - | 0% | - | - | - | - | - | 12.9% | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn



**20. Genesee and Liberty - TMC**
Thu Jul 19, 2018
PM Peak (4:15PM - 5:15PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549122, Location: 43.102833, -75.228108, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
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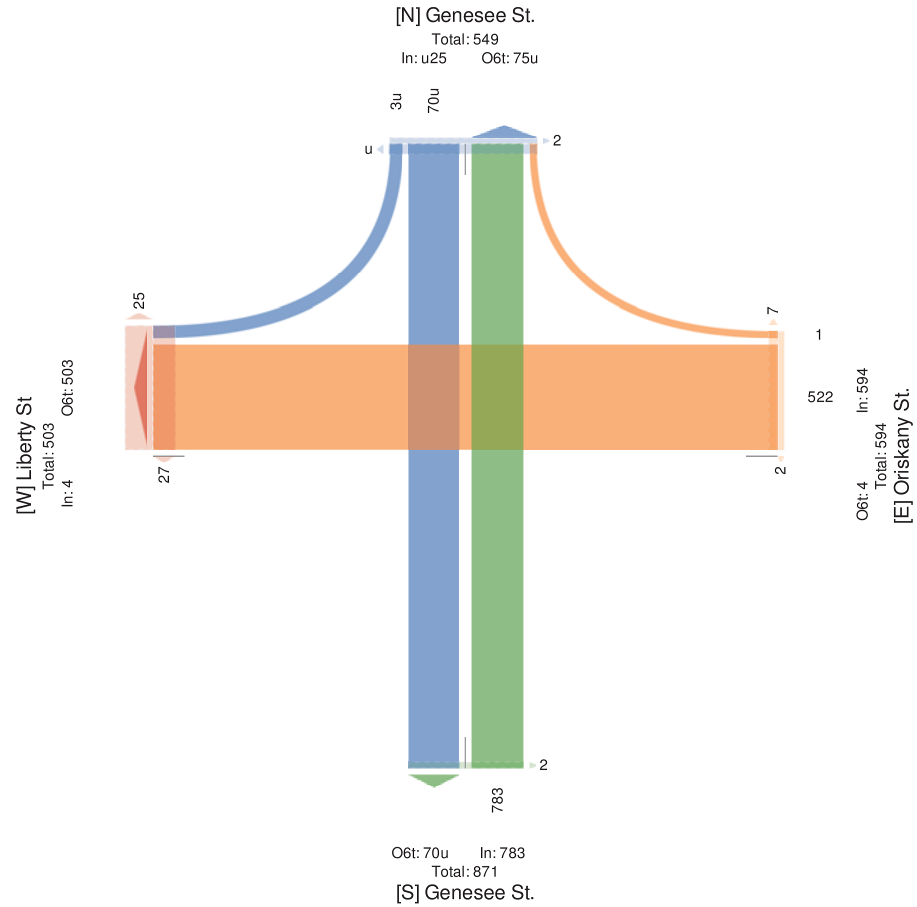


## 20. Genesee and Liberty - TMC

Wed Jdul 18, 21 0
FduLngt he (7AM-1AM894M-P4M6
Au) uCaana (Lst eha8 Aihsrdu Chnc WidrTa Cgc ksgt un-SgshWidrTa8Udana84ncnalisCga8UsrBruna yg o yCc8UsrBruna yg ) iyaaRCiT6
AuMywnv ngha
ml D 911 , , 8LyrChsygD953 2, 0558-7: 3, , 01 208kshn ) ycnDShsrC8. nR NyiT

4iywscnc YBDWis-khChn WiCbsr
I ChC8ngr3
l 09 UCTni o yCc8
) yCnawsun84A8l 15, 28Sk

| Lnt<br>I sinrhsyg | LsYnilBkh<br>OCahYydgc | | | | | | f isaTCgBkh3<br>E nahYydgc | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Wsv n | L | W | o | S | App | 4nc* | L | W | o | S | oo | App | 4nc* |
| , 210-27-1 1 7D22 AM | 2 | 2 | 2 | 2 | 1 | 9 | 2 | 105 | 2 | 2 | l | 572 | 2 |
| 7D: AM | 2 | 2 | 2 | 2 | 1 | : | l | 101 | 2 | 2 | 2 | 501 | 2 |
| 7D52 AM | 2 | 2 | 2 | 2 | 1 | 5 | 2 | , P5 | 2 | 2 | l | 432 | 2 |
| 7D9: AM | 2 | 2 | 2 | 2 | 1 | , | , | , 01 | l | 2 | 2 | 404 | , |
| HydiuBWyhCu | 2 | 2 | 2 | 2 | 1 | 19 | 5 | 1, 9 | l | 2 | , | 091 | , |
| 0D22 AM | 2 | 2 | 2 | 2 | 1 | l | 2 | , 9, | l | 2 | 2 | 429 | , |
| 0D: AM | 2 | 2 | 2 | 2 | 1 | l | l | , l, | l | 2 | 2 | 452 | 2 |
| 0D52 AM | 2 | 2 | 2 | 2 | 1 | 5 | l | 117 | 5 | 2 | l | 414 | l |
| 0D9: AM | 2 | 2 | 2 | 2 | 1 | 9 | 2 | 100 | l | 2 | l | 501 | 5 |
| HydiuBWyhCu | 2 | 2 | 2 | 2 | 1 | 1 | , | 051 | P | 2 | , | 720 | P |
| 1D22 AM | 2 | 2 | 2 | 2 | 1 | 2 | 2 | l | 2 | 2 | 2 | 5 | 2 |
| HydiuBWyhCu | 2 | 2 | 2 | 2 | 1 | 2 | 2 | l | 2 | 2 | 2 | 5 | 2 |
| 9D224M | 2 | 2 | 2 | 2 | 1 | , | l | , , 1 | 9 | 2 | l | 498 | l |
| 9D: 4M | 2 | 2 | 2 | 2 | 1 | 0 | 2 | 101 | l | 2 | 2 | 501 | l |
| 9D524M | 2 | 2 | 2 | 2 | 1 | 1 | 2 | , lP | , | 2 | 2 | 457 | l |
| 9D9: 4M | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 101 | l | 2 | 2 | 501 | , |
| HydiuBWyhCu | 2 | 2 | 2 | 2 | 1 | , 0 | l | 0, 5 | 0 | 2 | l | 799 | : |
| : D224M | 2 | 2 | 2 | 2 | 1 | : | 2 | , l7 | : | 2 | 2 | 444 | 2 |
| : D: 4M | 2 | 2 | 2 | 2 | 1 | P | 2 | 10l | 5 | 2 | 2 | 572 | l |
| : D524M | 2 | 2 | 2 | 2 | 1 | P | 2 | lP, | l | 2 | 2 | 539 | 1 |
| : D9: 4M | 2 | 2 | 2 | 2 | 1 | l | 2 | 105 | l | 2 | 2 | 572 | 2 |
| HydiuBWyhCu | 2 | 2 | 2 | 2 | 1 | 10 | 2 | 795 | 12 | 2 | 2 | 689 | 12 |
| PD224M | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 |
| HydiuBWyhCu | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 |
| **Total** | 2 | 2 | 2 | 2 | 1 | P1 | P | 5552 | , : | 2 | : | 9933 | , 5 |
| **% Approach** | 2% | 2% | 2% | 2% | - | - | 23, % | 1031% | 237% | 2% | 231% | - | - |
| **% Total** | 2% | 2% | 2% | 2% | 1% | - | 231% | : 732% | 239% | 2% | 231% | 86.3% | - |
| **Lights** | 2 | 2 | 2 | 2 | 1 | - | : | 5lPP | , 9 | 2 | : | 9411 | - |
| **% Lights** | 2% | 2% | 2% | 2% | - | - | 0535% | 1: 31% | 1P32% | 2% | 122% | 08.5% | - |
| **Articulated Trucks and Single-Unit Trucks** | 2 | 2 | 2 | 2 | 1 | - | 2 | 199 | l | 2 | 2 | 528 | - |
| **% Articulated Trucks and Single-Unit Trucks** | 2% | 2% | 2% | 2% | - | - | 2% | 935% | 932% | 2% | 2% | 2.9% | - |
| **Buses** | 2 | 2 | 2 | 2 | 1 | - | l | , 2 | 2 | 2 | 2 | 45 | - |
| **% Buses** | 2% | 2% | 2% | 2% | - | - | lP37% | 23P% | 2% | 2% | 2% | 1.3% | - |
| **Bicycles on Road** | 2 | 2 | 2 | 2 | 1 | - | 2 | 2 | 2 | 2 | 2 | 1 | - |
| **% Bicycles on Road** | 2% | 2% | 2% | 2% | - | - | 2% | 2% | 2% | 2% | 2% | 1% | - |
| 4ncnalisCga | - | - | - | - | - | P, | - | - | - | - | - | - | , l |
| % 4ncnalisCga | - | - | - | - | - | 0131% | - | - | - | - | - | - | 1l35% |
| UsrBruna yg ) iyaaRCiT | - | - | - | - | - | 7 | - | - | - | - | - | - | , |
| % UsrBruna yg ) iyaaRCiT | - | - | - | - | - | 1231% | - | - | - | - | - | - | 037% |

*4ncnalisCga Cgc UsrBruna yg ) iyaaRCiT3LDLnlh8o Do st el8o o Do st ehyg inc8WDWeid8SDS-Wdig

## 20. Genesee and Liberty - TMC

Thu Jul 19, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549122, Location: 43.102833, -75.228108, Site Code: Utica, New York

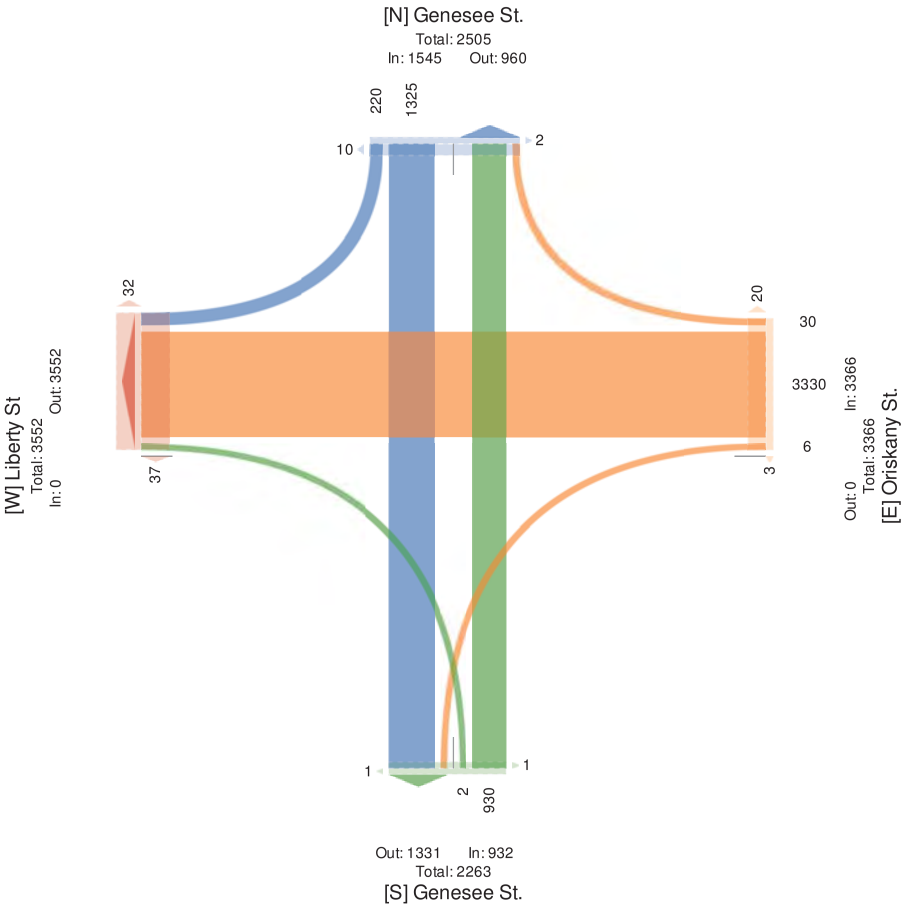
Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg<br>Direction | Genesee St.<br>Northbound | | | | | | Genesee St.<br>Southbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | L | T | R | U | App | Ped* | L | T | R | U | RR | App | Ped* | Int |
| 2018-07-19 7:00AM | 0 | 29 | 0 | 0 | 16 | 1 | 0 | 40 | 5 | 0 | 8 | 28 | 0 | 155 |
| 7:15AM | 0 | 29 | 0 | 0 | 16 | 0 | 0 | 71 | 2 | 0 | 5 | 43 | 0 | 164 |
| 7:30AM | 0 | 27 | 0 | 0 | 14 | 0 | 0 | 65 | 1 | 0 | 11 | 44 | 1 | 853 |
| 7:45AM | 1 | 35 | 0 | 0 | 85 | 0 | 0 | 99 | 4 | 0 | 11 | 997 | 0 | 771 |
| Hourly Total | 1 | 120 | 0 | 0 | 919 | 1 | 0 | 275 | 12 | 0 | 35 | 811 | 1 | 9848 |
| 8:00AM | 0 | 34 | 0 | 0 | 87 | 0 | 0 | 96 | 17 | 0 | 4 | 994 | 0 | 867 |
| 8:15AM | 0 | 35 | 0 | 0 | 82 | 0 | 0 | 92 | 7 | 0 | 7 | 905 | 0 | 822 |
| 8:30AM | 1 | 41 | 0 | 0 | 71 | 0 | 0 | 97 | 9 | 0 | 7 | 998 | 0 | 824 |
| 8:45AM | 0 | 46 | 0 | 0 | 75 | 0 | 0 | 92 | 10 | 0 | 3 | 902 | 2 | 879 |
| Hourly Total | 1 | 156 | 0 | 0 | 924 | 0 | 0 | 377 | 43 | 0 | 21 | 779 | 2 | 9774 |
| 9:00AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| 4:00PM | 0 | 84 | 0 | 0 | 37 | 0 | 0 | 97 | 13 | 0 | 5 | 992 | 1 | 787 |
| 4:15PM | 0 | 87 | 0 | 0 | 34 | 0 | 0 | 101 | 8 | 0 | 4 | 998 | 2 | 860 |
| 4:30PM | 0 | 94 | 0 | 0 | 67 | 0 | 0 | 76 | 15 | 0 | 5 | 65 | 0 | 703 |
| 4:45PM | 0 | 95 | 0 | 0 | 62 | 1 | 0 | 88 | 5 | 0 | 1 | 67 | 2 | 846 |
| Hourly Total | 0 | 360 | 0 | 0 | 850 | 1 | 0 | 362 | 41 | 0 | 15 | 793 | 5 | 9599 |
| 5:00PM | 0 | 99 | 0 | 0 | 66 | 0 | 0 | 99 | 11 | 0 | 5 | 992 | 1 | 785 |
| 5:15PM | 0 | 70 | 0 | 0 | 40 | 0 | 0 | 65 | 6 | 0 | 3 | 47 | 0 | 813 |
| 5:30PM | 0 | 61 | 0 | 0 | 59 | 0 | 0 | 79 | 9 | 0 | 6 | 67 | 3 | 893 |
| 5:45PM | 0 | 64 | 0 | 0 | 57 | 0 | 0 | 68 | 8 | 0 | 5 | 39 | 0 | 816 |
| Hourly Total | 0 | 294 | 0 | 0 | 167 | 0 | 0 | 311 | 34 | 0 | 19 | 857 | 4 | 9799 |
| 6:00PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Total** | 2 | 930 | 0 | 0 | 681 | 2 | 0 | 1325 | 130 | 0 | 90 | 9272 | 12 | 2378 |
| **% Approach** | 0.2% | 99.8% | 0% | 0% | - | - | 0% | 85.8% | 8.4% | 0% | 5.8% | - | - | - |
| **% Total** | 0% | 15.9% | 0% | 0% | 95.0% | - | 0% | 22.7% | 2.2% | 0% | 1.5% | 15.7% | - | - |
| **Lights** | 2 | 896 | 0 | 0 | 363 | - | 0 | 1284 | 123 | 0 | 86 | 9768 | - | 5591 |
| **% Lights** | 100% | 96.3% | 0% | 0% | 65.7% | - | 0% | 96.9% | 94.6% | 0% | 95.6% | 65.5% | - | 95.7% |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 15 | 0 | 0 | 92 | - | 0 | 32 | 4 | 0 | 1 | 84 | - | 197 |
| **% Articulated Trucks and Single-Unit Trucks** | 0% | 1.6% | 0% | 0% | 9.5% | - | 0% | 2.4% | 3.1% | 0% | 1.1% | 1.7% | - | 3.4% |
| **Buses** | 0 | 14 | 0 | 0 | 97 | - | 0 | 8 | 3 | 0 | 3 | 97 | - | 49 |
| **% Buses** | 0% | 1.5% | 0% | 0% | 9.2% | - | 0% | 0.6% | 2.3% | 0% | 3.3% | 0.6% | - | 0.8% |
| **Bicycles on Road** | 0 | 5 | 0 | 0 | 2 | - | 0 | 1 | 0 | 0 | 0 | 9 | - | 6 |
| **% Bicycles on Road** | 0% | 0.5% | 0% | 0% | 0.2% | - | 0% | 0.1% | 0% | 0% | 0% | 0.9% | - | 0.1% |
| Pedestrians | - | - | - | - | - | 2 | - | - | - | - | - | - | 9 | |
| % Pedestrians | - | - | - | - | - | 100% | - | - | - | - | - | - | 75.0% | - |
| Bicycles on Crosswalk | - | - | - | - | - | 0 | - | - | - | - | - | - | 3 | |
| % Bicycles on Crosswalk | - | - | - | - | - | 0% | - | - | - | - | - | - | 25.0% | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

**20. Genesee and Liberty - TMC**
Thu Jul 19, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549122, Location: 43.102833, -75.228108, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US






**20. Genesee and Liberty - TMC**
Wed Jdul 18, 2l 0
AM Pak( 7: 3 2AM ) 03 2AMC
Auus ukLLaL7i ghetL8ArtgcduktaT Wrdc(LknT Sgnhua)Ung Wrdc(L8BdLaL8PaTaLtrgknL8BgycuaL on RokT8BgycuaLon s roLLwku(C
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| i ah<br>Dgractgon | i gNarty St<br>f kLtNodnT | | | | | | b rgL(kny St9<br>O aLtNodnT | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Wgma | i | W | R | U | **App** | PaTE | i | W | R | U | RR | **App** | PaTE |
| , 210)2: )l1 : 3 2AM | 2 | 2 | 2 | 2 | **2** | - | 2 | , *- | 2 | 2 | l | **403** | 2 |
| : 345AM | 2 | 2 | 2 | 2 | **2** | , | , | , 01 | l | 2 | 2 | **474** | , |
| 0322AM | 2 | 2 | 2 | 2 | **2** | l | 2 | , 4, | l | 2 | 2 | **439** | , |
| 0315AM | 2 | 2 | 2 | 2 | **2** | l | l | , l, | l | 2 | 2 | **413** | 2 |
| **5 6Tbt** | 2 | 2 | 2 | 2 | **2** | : | - | 122* | - | 2 | l | **1219** | 4 |
| **a lApp%6o r** | 2% | 2% | 2% | 2% | **c** | ) | 29- % | 119- % | 29- % | 2% | 291% | **c** | ) |
| **a l5 6Tbt** | 2% | 2% | 2% | 2% | **2a** | ) | 29, % | *495% | 29, % | 2% | 291% | **0h-2a** | ) |
| **8. P** | ) | ) | ) | ) | **c** | ) | 29- : 5 | 290: 2 | 29: 52 | ) | 29, 52 | **2-H0F** | ) |
| **LigrTs** | 2 | 2 | 2 | 2 | **2** | ) | - | 14: | , | 2 | l | **7h9** | ) |
| **a lLigrTs** | 2% | 2% | 2% | 2% | **c** | ) | 122% | 1491% | **9: % | 2% | 122% | **73-1a** | ) |
| **A%T utoTe dl5 %u kslondlSingtecUniT5 %u ks** | 2 | 2 | 2 | 2 | **2** | ) | 2 | 40 | l | 2 | 2 | **37** | ) |
| **a lA%T utoTe dl5 %u kslondlSingtecUniT5 %u ks** | 2% | 2% | 2% | 2% | **c** | ) | 2% | 490% | - - 9- % | 2% | 2% | **3-Ha** | ) |
| **Buses** | 2 | 2 | 2 | 2 | **2** | ) | 2 | 11 | 2 | 2 | 2 | **11** | ) |
| **a lBuses** | 2% | 2% | 2% | 2% | **c** | ) | 2% | 191% | 2% | 2% | 2% | **1-1a** | ) |
| **Bi y tesl6nlR6od** | 2 | 2 | 2 | 2 | **2** | ) | 2 | 2 | 2 | 2 | 2 | **2** | ) |
| **a lBi y tesl6nlR6od** | 2% | 2% | 2% | 2% | **c** | ) | 2% | 2% | 2% | 2% | 2% | **2a** | ) |
| PaTaLtrgknL | ) | ) | ) | ) | ) | * | ) | ) | ) | ) | ) | ) | 4 |
| % PaTaLtrgknL | ) | ) | ) | ) | ) | 059: % | ) | ) | ) | ) | ) | ) | 122% |
| BgycuaLon s roLLwku( | ) | ) | ) | ) | ) | l | ) | ) | ) | ) | ) | ) | 2 |
| % BgycuaLon s roLLwku( | ) | ) | ) | ) | ) | 149- % | ) | ) | ) | ) | ) | ) | 2% |

EPaTaLtrgknLknT BgycuaLon s roLLwku(9i 3i aY8R3Rghet8RR3Rghet on raT8W3Werd8U3U)Wdrn



Revised A - 120

**20. Genesee and Liberty - TMC**
Thu Jul 19, 2018
AM Peak (7:30AM - 8:30AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549122, Location: 43.102833, -75.228108, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

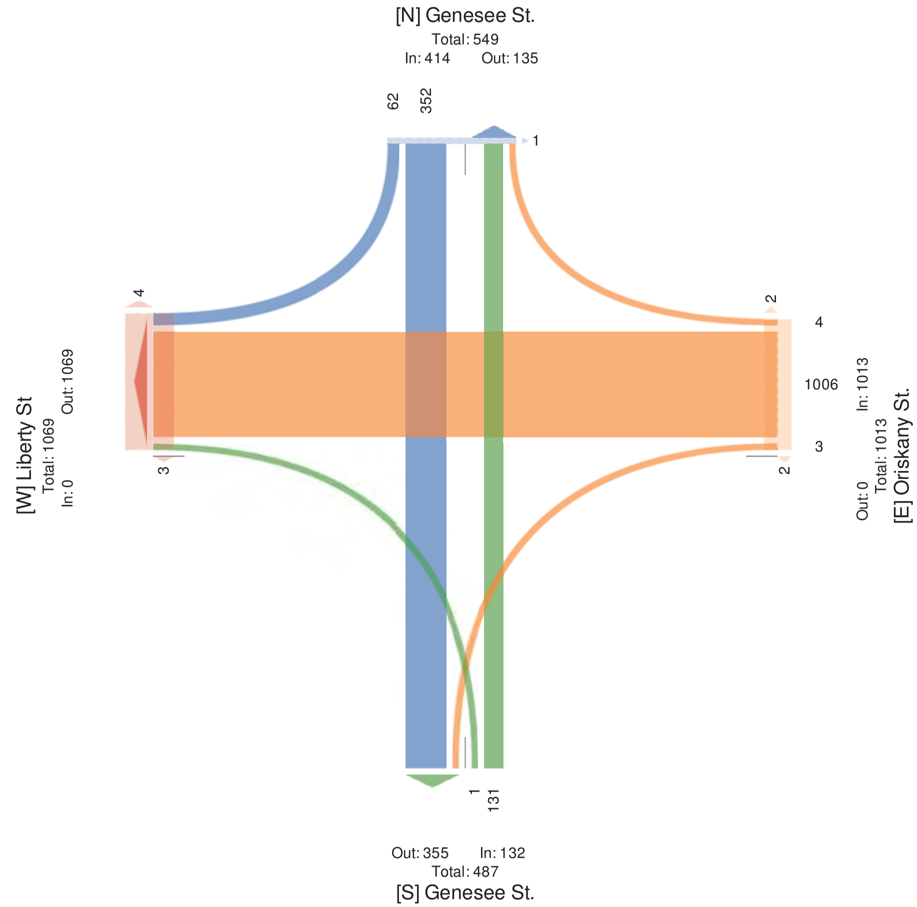
| Leg<br>Direction | Genesee St.<br>Northbound | | | | | | Genesee St.<br>Southbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | L | T | R | U | App | Ped* | L | T | R | U | RR | App | Ped* | Int |
| 2018-07-19 7:30AM | 0 | 27 | 0 | 0 | **25** | 0 | 0 | 65 | 1 | 0 | 11 | **55** | 1 | **174** |
| 7:45AM | 1 | 35 | 0 | 0 | **17** | 0 | 0 | 99 | 4 | 0 | 11 | **880** | 0 | **002** |
| 8:00AM | 0 | 34 | 0 | 0 | **10** | 0 | 0 | 96 | 17 | 0 | 4 | **885** | 0 | **130** |
| 8:15AM | 0 | 35 | 0 | 0 | **16** | 0 | 0 | 92 | 7 | 0 | 7 | **897** | 0 | **166** |
| **Total** | 1 | 131 | 0 | 0 | **812** | 0 | 0 | 352 | 29 | 0 | 33 | **080** | 1 | **8663** |
| **% Approach** | 0.8% | 99.2% | 0% | 0% | - | - | 0% | 85.0% | 7.0% | 0% | 8.0% | - | - | - |
| **% Total** | 0.1% | 8.4% | 0% | 0% | **4.6%** | - | 0% | 22.6% | 1.9% | 0% | 2.1% | **27.7%** | - | - |
| **PHF** | 0.250 | 0.936 | - | - | **9.385** | - | - | 0.889 | 0.426 | - | 0.750 | **9.446** | - | 0.882 |
| **Lights** | 1 | 119 | 0 | 0 | **829** | - | 0 | 334 | 28 | 0 | 32 | **130** | - | 1467 |
| **% Lights** | 100% | 90.8% | 0% | 0% | **39.3%** | - | 0% | 94.9% | 96.6% | 0% | 97.0% | **36.2%** | - | 94.1% |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 8 | 0 | 0 | **4** | - | 0 | 17 | 1 | 0 | 0 | **84** | - | 75 |
| **% Articulated Trucks and Single-Unit Trucks** | 0% | 6.1% | 0% | 0% | **7.8%** | - | 0% | 4.8% | 3.4% | 0% | 0% | **0.1%** | - | 4.8% |
| **Buses** | 0 | 3 | 0 | 0 | **1** | - | 0 | 1 | 0 | 0 | 1 | **2** | - | 16 |
| **% Buses** | 0% | 2.3% | 0% | 0% | **2.1%** | - | 0% | 0.3% | 0% | 0% | 3.0% | **9.6%** | - | 1.0% |
| **Bicycles on Road** | 0 | 1 | 0 | 0 | **8** | - | 0 | 0 | 0 | 0 | 0 | **9** | - | 1 |
| **% Bicycles on Road** | 0% | 0.8% | 0% | 0% | **9.4%** | - | 0% | 0% | 0% | 0% | 0% | **9%** | - | 0.1% |
| Pedestrians | - | - | - | - | - | 0 | - | - | - | - | - | - | 1 | |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | 100% | - |
| Bicycles on Crosswalk | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | 0% | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn



**20. Genesee and Liberty - TMC**
Thu Jul 19, 2018
AM Peak (7:30AM - 8:30AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549122, Location: 43.102833, -75.228108, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US



## 20. Genesee and Liberty - TMC

Wed Jdul 18, 21 0
PM Pak( 4-51 ) PM O) 51 ) PMvOr HaokuuPak( ACdo
s uuLukiiai 4ght eci 8s odiTdukcan WodT(i kSn UlSt uaOBShcWodT(i 8y di ai 8Panai colkSi 8y hTRTuai
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| gat<br>: hoa TdhCS | glNa odR Uc<br>bki cNCdSn | | | | | | r ohi ( kSR Uc3<br>f a i cNCdSn | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WhI a | g | W | w | B | App | PanE | g | W | w | B | ww | App | PanE |
| , 210Q2. 01 - 51 ) PM | 2 | 2 | 2 | 2 | **0** | 0 | 2 | 101 | 1 | 2 | 2 | **190** | 1 |
| - 592PM | 2 | 2 | 2 | 2 | **0** | 1 | 2 | , 1* | , | 2 | 2 | **218** | 1 |
| - 5- ) PM | 2 | 2 | 2 | 2 | **0** | 1 | 2 | 101 | 1 | 2 | 2 | **190** | , |
| ) 522PM | 2 | 2 | 2 | 2 | **0** | ) | 2 | , 1 . | ) | 2 | 2 | **222** | 2 |
| **Total** | 2 | 2 | 2 | 2 | **0** | 91 | 2 | 011 | 1 | 2 | 2 | **820** | - |
| **% Approach** | 2% | 2% | 2% | 2% | - | O | 2% | 1031% | 131% | 2% | 2% | - | O |
| **% Total** | 2% | 2% | 2% | 2% | **0%** | O | 2% | ) 239% | 23*% | 2% | 2% | **50.8%** | O |
| **PHF** | O | O | O | O | - | O | O | 2319- | 23- ) 2 | O | O | **0.923** | O |
| **Lights** | 2 | 2 | 2 | 2 | **0** | O | 2 | . 09 | 1 | 2 | 2 | **792** | O |
| **% Lights** | 2% | 2% | 2% | 2% | - | O | 2% | 1*3) % | 122% | 2% | 2% | **96.6%** | O |
| **Articulated Trucks and Single-Unit Trucks** | 2 | 2 | 2 | 2 | **0** | O | 2 | , * | 2 | 2 | 2 | **26** | O |
| **% Articulated Trucks and Single-Unit Trucks** | 2% | 2% | 2% | 2% | - | O | 2% | 93, % | 2% | 2% | 2% | **3.2%** | O |
| **Buses** | 2 | 2 | 2 | 2 | **0** | O | 2 | , | 2 | 2 | 2 | **2** | O |
| **% Buses** | 2% | 2% | 2% | 2% | - | O | 2% | 23, % | 2% | 2% | 2% | **0.2%** | O |
| **Bicycles on Road** | 2 | 2 | 2 | 2 | **0** | O | 2 | 2 | 2 | 2 | 2 | **0** | O |
| **% Bicycles on Road** | 2% | 2% | 2% | 2% | - | O | 2% | 2% | 2% | 2% | 2% | **0%** | O |
| PanaicolkSi | O | O | O | O | O | , . | O | O | O | O | O | O | 9 |
| % PanaicolkSi | O | O | O | O | O | 0. 31% | O | O | O | O | O | O | . ) 32% |
| y hTRTuai CS LoCi i mku( | O | O | O | O | O | - | O | O | O | O | O | O | 1 |
| % y hTRTuai CS LoCi i mku( | O | O | O | O | O | 1, 31% | O | O | O | O | O | O | , ) 32% |

EPanaicolkSi kSn y hTRTuai CS LoCi i mku( 3g5ga Y8w5wht ec8ww5wht ecCS oan8W5Weod8B5BOWdoS



## 20. Genesee and Liberty - TMC

Thu Jul 19, 2018
PM Peak (4:15PM - 5:15PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549122, Location: 43.102833, -75.228108, Site Code: Utica, New York

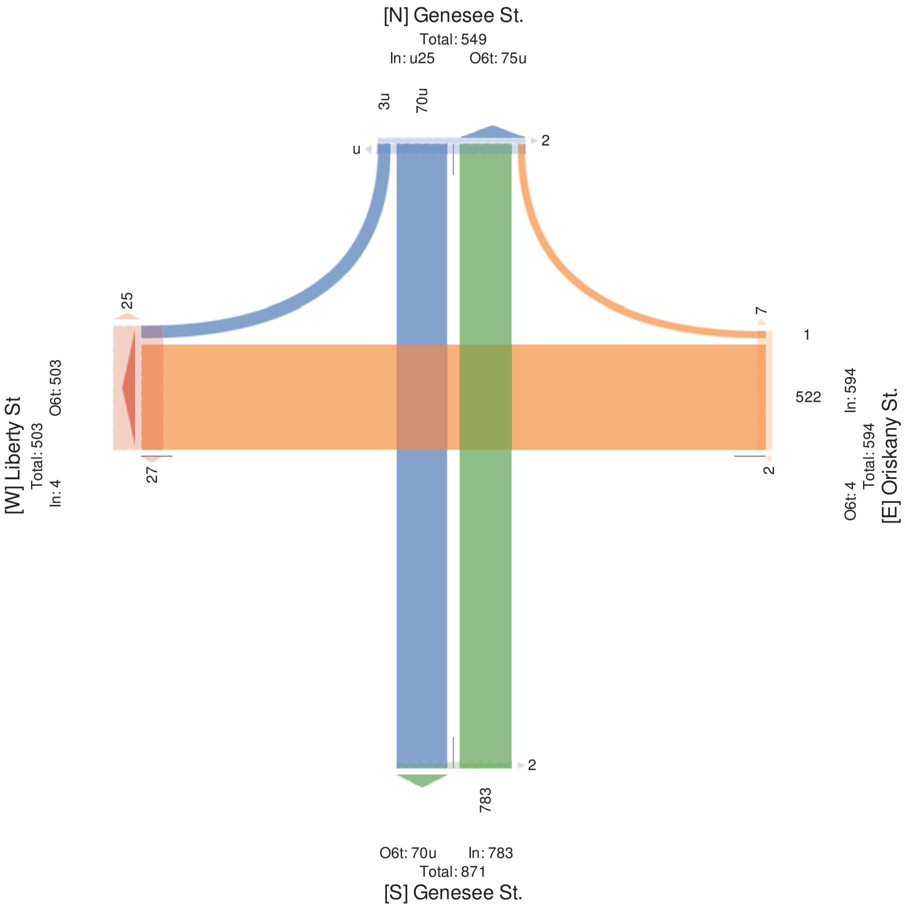
Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg<br>Direction | Genesee St.<br>Northbound | | | | | | Genesee St.<br>Southbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | L | T | R | U | App | Ped* | L | T | R | U | RR | App | Ped* | Int |
| 2018-07-19 4:15PM | 0 | 87 | 0 | 0 | **25** | 0 | 0 | 101 | 8 | 0 | 4 | **117** | 2 | **748** |
| 4:30PM | 0 | 94 | 0 | 0 | **40** | 0 | 0 | 76 | 15 | 0 | 5 | **43** | 0 | **082** |
| 4:45PM | 0 | 95 | 0 | 0 | **46** | 1 | 0 | 88 | 5 | 0 | 1 | **40** | 2 | **754** |
| 5:00PM | 0 | 99 | 0 | 0 | **44** | 0 | 0 | 99 | 11 | 0 | 5 | **116** | 1 | **073** |
| **9 Ttoa** | 0 | 375 | 0 | 0 | **756** | 1 | 0 | 364 | 39 | 0 | 15 | **012** | 5 | **1317** |
| **l %App Torc** | 0% | 100% | 0% | 0% | **h** | - | 0% | 87.1% | 9.3% | 0% | 3.6% | **h** | - | - |
| **l %Ttoa** | 0% | 23.2% | 0% | 0% | **-7.-l** | - | 0% | 22.6% | 2.4% | 0% | 0.9% | **-6.4l** | - | - |
| **PHF** | - | 0.947 | - | - | **8.405** | - | - | 0.901 | 0.650 | - | 0.750 | **8.484** | - | 0.925 |
| **Ligcts** | 0 | 370 | 0 | 0 | **758** | - | 0 | 359 | 37 | 0 | 15 | **011** | - | 1573 |
| **l %Ligcts** | 0% | 98.7% | 0% | 0% | **42.5l** | - | 0% | 98.6% | 94.9% | 0% | 100% | **42.7l** | - | 97.5% |
| **A tiruaoted% urks%nd%ingaeUnit% urks** | 0 | 2 | 0 | 0 | **-** | - | 0 | 2 | 1 | 0 | 0 | **7** | - | 31 |
| **l %A tiruaoted% urks%nd%ingaeUnit% urks** | 0% | 0.5% | 0% | 0% | **8.6l** | - | 0% | 0.5% | 2.6% | 0% | 0% | **8.5l** | - | 1.9% |
| **Buses** | 0 | 2 | 0 | 0 | **-** | - | 0 | 3 | 1 | 0 | 0 | **0** | - | 8 |
| **l %Buses** | 0% | 0.5% | 0% | 0% | **8.6l** | - | 0% | 0.8% | 2.6% | 0% | 0% | **1.8l** | - | 0.5% |
| **Biryraes%n%RTod** | 0 | 1 | 0 | 0 | **1** | - | 0 | 0 | 0 | 0 | 0 | **8** | - | 1 |
| **l %Biryraes%n%RTod** | 0% | 0.3% | 0% | 0% | **8.7l** | - | 0% | 0% | 0% | 0% | 0% | **8l** | - | 0.1% |
| Pedestrians | - | - | - | - | - | 1 | - | - | - | - | - | - | 4 | |
| % Pedestrians | - | - | - | - | - | 100% | - | - | - | - | - | - | 80.0% | - |
| Bicycles on Crosswalk | - | - | - | - | - | 0 | - | - | - | - | - | - | 1 | |
| % Bicycles on Crosswalk | - | - | - | - | - | 0% | - | - | - | - | - | - | 20.0% | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

**20. Genesee and Liberty - TMC**
Thu Jul 19, 2018
PM Peak (4:15PM - 5:15PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549122, Location: 43.102833, -75.228108, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US






**20. Genesee and Liberty - TMC**
Wed Jdul 18, 2l 0
FduLngt he (7AM-1AM894M-P4M6
Au) uCaana (Lst eha8Aihr duCnc WidrTa Cgc ksgt un-S gshWidrTa8Udana84ncnalisCga8UsrBruna yg o yCc8UsrBruna yg ) iyaaRCiT6
AuMywnv ngha
ml D 91l , , 8LyrChsygD953 2, 0558-7: 3, , 0l 208kshn ) ycnDShsrC8. nR NyiT

4iywscnc YBDWis-khCn WiCbsr
I ChC8ngr3
l 09 UCTni o yCc8
) yCnawsun84A8l 15, 28Sk

| Lnt<br>I sinrhsyg | LsYnihBkh<br>OCahYydgc | | | | | | f isaTCgBkh3<br>E nahYydgc | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Wsv n | L | W | o | S | **App** | 4nc* | L | W | o | S | oo | **App** | 4nc* |
| , 2l0-27-l1 7D22AM | 2 | 2 | 2 | 2 | **1** | 9 | 2 | l05 | 2 | 2 | l | **572** | 2 |
| 7D: AM | 2 | 2 | 2 | 2 | **1** | : | l | l01 | 2 | 2 | 2 | **501** | 2 |
| 7D52AM | 2 | 2 | 2 | 2 | **1** | 5 | 2 | , P5 | 2 | 2 | l | **432** | 2 |
| 7D9: AM | 2 | 2 | 2 | 2 | **1** | , | , | , 01 | l | 2 | 2 | **404** | , |
| HydiuBWylCu | 2 | 2 | 2 | 2 | **1** | l9 | 5 | 1, 9 | l | 2 | , | **091** | , |
| 0D22AM | 2 | 2 | 2 | 2 | **1** | l | 2 | , 9, | l | 2 | 2 | **429** | , |
| 0D: AM | 2 | 2 | 2 | 2 | **1** | l | l | , l, | l | 2 | 2 | **452** | 2 |
| 0D52AM | 2 | 2 | 2 | 2 | **1** | 5 | l | l17 | 5 | 2 | l | **414** | l |
| 0D9: AM | 2 | 2 | 2 | 2 | **1** | 9 | 2 | 100 | l | 2 | l | **501** | 5 |
| HydiuBWylCu | 2 | 2 | 2 | 2 | **1** | 1 | , | 051 | P | 2 | , | **720** | P |
| 1D22AM | 2 | 2 | 2 | 2 | **1** | 2 | 2 | l | 2 | 2 | 2 | **5** | 2 |
| HydiuBWylCu | 2 | 2 | 2 | 2 | **1** | 2 | 2 | l | 2 | 2 | 2 | **5** | 2 |
| 9D224M | 2 | 2 | 2 | 2 | **1** | , | l | , , 1 | 9 | 2 | l | **498** | l |
| 9D: 4M | 2 | 2 | 2 | 2 | **1** | 0 | 2 | l01 | l | 2 | 2 | **501** | l |
| 9D524M | 2 | 2 | 2 | 2 | **1** | 1 | 2 | , lP | , | 2 | 2 | **457** | l |
| 9D9: 4M | 2 | 2 | 2 | 2 | **1** | 1 | 2 | l01 | l | 2 | 2 | **501** | , |
| HydiuBWylCu | 2 | 2 | 2 | 2 | **1** | , 0 | l | 0, 5 | 0 | 2 | l | **799** | : |
| : D224M | 2 | 2 | 2 | 2 | **1** | : | 2 | , l7 | : | 2 | 2 | **444** | 2 |
| : D: 4M | 2 | 2 | 2 | 2 | **1** | P | 2 | l0l | 5 | 2 | 2 | **572** | l |
| : D524M | 2 | 2 | 2 | 2 | **1** | P | 2 | lP, | l | 2 | 2 | **539** | 1 |
| : D9: 4M | 2 | 2 | 2 | 2 | **1** | l | 2 | l05 | l | 2 | 2 | **572** | 2 |
| HydiuBWylCu | 2 | 2 | 2 | 2 | **1** | 10 | 2 | 795 | l2 | 2 | 2 | **689** | l2 |
| PD224M | 2 | 2 | 2 | 2 | **1** | 2 | 2 | 2 | 2 | 2 | 2 | **1** | 2 |
| HydiuBWylCu | 2 | 2 | 2 | 2 | **1** | 2 | 2 | 2 | 2 | 2 | 2 | **1** | 2 |
| **Total** | 2 | 2 | 2 | 2 | **1** | P1 | P | 5552 | , : | 2 | : | **9933** | , 5 |
| **% Approach** | 2% | 2% | 2% | 2% | **-** | - | 23, % | 103l% | 237% | 2% | 23l% | **-** | - |
| **% Total** | 2% | 2% | 2% | 2% | **1%** | - | 23l% | : 732% | 239% | 2% | 23l% | **86.3%** | - |
| **Lights** | 2 | 2 | 2 | 2 | **1** | - | : | 5lPP | , 9 | 2 | : | **9411** | - |
| **% Lights** | 2% | 2% | 2% | 2% | **-** | - | 055% | 1: 3l% | 1P32% | 2% | l22% | **08.5%** | - |
| **Articulated Trucks and Single-Unit Trucks** | 2 | 2 | 2 | 2 | **1** | - | 2 | l99 | l | 2 | 2 | **528** | - |
| **% Articulated Trucks and Single-Unit Trucks** | 2% | 2% | 2% | 2% | **-** | - | 2% | 935% | 932% | 2% | 2% | **2.9%** | - |
| **Buses** | 2 | 2 | 2 | 2 | **1** | - | l | , 2 | 2 | 2 | 2 | **45** | - |
| **% Buses** | 2% | 2% | 2% | 2% | **-** | - | lP37% | 23P% | 2% | 2% | 2% | **1.3%** | - |
| **Bicycles on Road** | 2 | 2 | 2 | 2 | **1** | - | 2 | 2 | 2 | 2 | 2 | **1** | - |
| **% Bicycles on Road** | 2% | 2% | 2% | 2% | **-** | - | 2% | 2% | 2% | 2% | 2% | **1%** | - |
| 4ncnalisCga | - | - | - | - | - | P, | - | - | - | - | - | - | , l |
| % 4ncnalisCga | - | - | - | - | - | 013l% | - | - | - | - | - | - | 1l35% |
| UsrBruna yg ) iyaaRCiT | - | - | - | - | - | 7 | - | - | - | - | - | - | , |
| % UsrBruna yg ) iyaaRCiT | - | - | - | - | - | 123l% | - | - | - | - | - | - | 037% |

*4ncnalisCga Cgc UsrBruna yg ) iyaaRCiT3LDLnbh8o Do st eh8o o Do st ehyg inc8WDWeid8S DS-Wdig



Revised A - 123

## 20. Genesee and Liberty - TMC

Thu Jul 19, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549122, Location: 43.102833, -75.228108, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Genesee St. | | | | | | Genesee St. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Northbound | | | | | | Southbound | | | | | | | |
| Time | L | T | R | U | **App** | Ped* | L | T | R | U | RR | **App** | Ped* | **Int** |
| 2018-07-19 7:00AM | 0 | 29 | 0 | 0 | **16** | 1 | 0 | 40 | 5 | 0 | 8 | **28** | 0 | **155** |
| 7:15AM | 0 | 29 | 0 | 0 | **16** | 0 | 0 | 71 | 2 | 0 | 5 | **43** | 0 | **164** |
| 7:30AM | 0 | 27 | 0 | 0 | **14** | 0 | 0 | 65 | 1 | 0 | 11 | **44** | 1 | **853** |
| 7:45AM | 1 | 35 | 0 | 0 | **85** | 0 | 0 | 99 | 4 | 0 | 11 | **997** | 0 | **771** |
| Hourly Total | 1 | 120 | 0 | 0 | **919** | 1 | 0 | 275 | 12 | 0 | 35 | **811** | 1 | **9848** |
| 8:00AM | 0 | 34 | 0 | 0 | **87** | 0 | 0 | 96 | 17 | 0 | 4 | **994** | 0 | **867** |
| 8:15AM | 0 | 35 | 0 | 0 | **82** | 0 | 0 | 92 | 7 | 0 | 7 | **905** | 0 | **822** |
| 8:30AM | 1 | 41 | 0 | 0 | **71** | 0 | 0 | 97 | 9 | 0 | 7 | **998** | 0 | **824** |
| 8:45AM | 0 | 46 | 0 | 0 | **75** | 0 | 0 | 92 | 10 | 0 | 3 | **902** | 2 | **879** |
| Hourly Total | 1 | 156 | 0 | 0 | **924** | 0 | 0 | 377 | 43 | 0 | 21 | **779** | 2 | **9774** |
| 9:00AM | 0 | 0 | 0 | 0 | **0** | 0 | 0 | 0 | 0 | 0 | 0 | **0** | 0 | **9** |
| Hourly Total | 0 | 0 | 0 | 0 | **0** | 0 | 0 | 0 | 0 | 0 | 0 | **0** | 0 | **9** |
| 4:00PM | 0 | 84 | 0 | 0 | **37** | 0 | 0 | 97 | 13 | 0 | 5 | **992** | 1 | **787** |
| 4:15PM | 0 | 87 | 0 | 0 | **34** | 0 | 0 | 101 | 8 | 0 | 4 | **998** | 2 | **860** |
| 4:30PM | 0 | 94 | 0 | 0 | **67** | 0 | 0 | 76 | 15 | 0 | 5 | **65** | 0 | **703** |
| 4:45PM | 0 | 95 | 0 | 0 | **62** | 1 | 0 | 88 | 5 | 0 | 1 | **67** | 2 | **846** |
| Hourly Total | 0 | 360 | 0 | 0 | **850** | 1 | 0 | 362 | 41 | 0 | 15 | **793** | 5 | **9599** |
| 5:00PM | 0 | 99 | 0 | 0 | **66** | 0 | 0 | 99 | 11 | 0 | 5 | **992** | 1 | **785** |
| 5:15PM | 0 | 70 | 0 | 0 | **40** | 0 | 0 | 65 | 6 | 0 | 3 | **47** | 0 | **813** |
| 5:30PM | 0 | 61 | 0 | 0 | **59** | 0 | 0 | 79 | 9 | 0 | 6 | **67** | 3 | **893** |
| 5:45PM | 0 | 64 | 0 | 0 | **57** | 0 | 0 | 68 | 8 | 0 | 5 | **39** | 0 | **816** |
| Hourly Total | 0 | 294 | 0 | 0 | **167** | 0 | 0 | 311 | 34 | 0 | 19 | **857** | 4 | **9799** |
| 6:00PM | 0 | 0 | 0 | 0 | **0** | 0 | 0 | 0 | 0 | 0 | 0 | **0** | 0 | **0** |
| Hourly Total | 0 | 0 | 0 | 0 | **0** | 0 | 0 | 0 | 0 | 0 | 0 | **0** | 0 | **0** |
| **Total** | 2 | 930 | 0 | 0 | **681** | 2 | 0 | 1325 | 130 | 0 | 90 | **9272** | 12 | **2378** |
| **% Approach** | 0.2% | 99.8% | 0% | 0% | - | - | 0% | 85.8% | 8.4% | 0% | 5.8% | - | - | - |
| **% Total** | 0% | 15.9% | 0% | 0% | **95.0%** | - | 0% | 22.7% | 2.2% | 0% | 1.5% | **15.7%** | - | - |
| **Lights** | 2 | 896 | 0 | 0 | **363** | - | 0 | 1284 | 123 | 0 | 86 | **9768** | - | 5591 |
| **% Lights** | 100% | 96.3% | 0% | 0% | **65.7%** | - | 0% | 96.9% | 94.6% | 0% | 95.6% | **65.5%** | - | 95.7% |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 15 | 0 | 0 | **92** | - | 0 | 32 | 4 | 0 | 1 | **84** | - | 197 |
| **% Articulated Trucks and Single-Unit Trucks** | 0% | 1.6% | 0% | 0% | **9.5%** | - | 0% | 2.4% | 3.1% | 0% | 1.1% | **1.7%** | - | 3.4% |
| **Buses** | 0 | 14 | 0 | 0 | **97** | - | 0 | 8 | 3 | 0 | 3 | **97** | - | 49 |
| **% Buses** | 0% | 1.5% | 0% | 0% | **9.2%** | - | 0% | 0.6% | 2.3% | 0% | 3.3% | **0.6%** | - | 0.8% |
| **Bicycles on Road** | 0 | 5 | 0 | 0 | **2** | - | 0 | 1 | 0 | 0 | 0 | **9** | - | 6 |
| **% Bicycles on Road** | 0% | 0.5% | 0% | 0% | **0.2%** | - | 0% | 0.1% | 0% | 0% | 0% | **0.9%** | - | 0.1% |
| Pedestrians | - | - | - | - | - | 2 | - | - | - | - | - | - | 9 | |
| % Pedestrians | - | - | - | - | - | 100% | - | - | - | - | - | - | 75.0% | - |
| Bicycles on Crosswalk | - | - | - | - | - | 0 | - | - | - | - | - | - | 3 | |
| % Bicycles on Crosswalk | - | - | - | - | - | 0% | - | - | - | - | - | - | 25.0% | - |

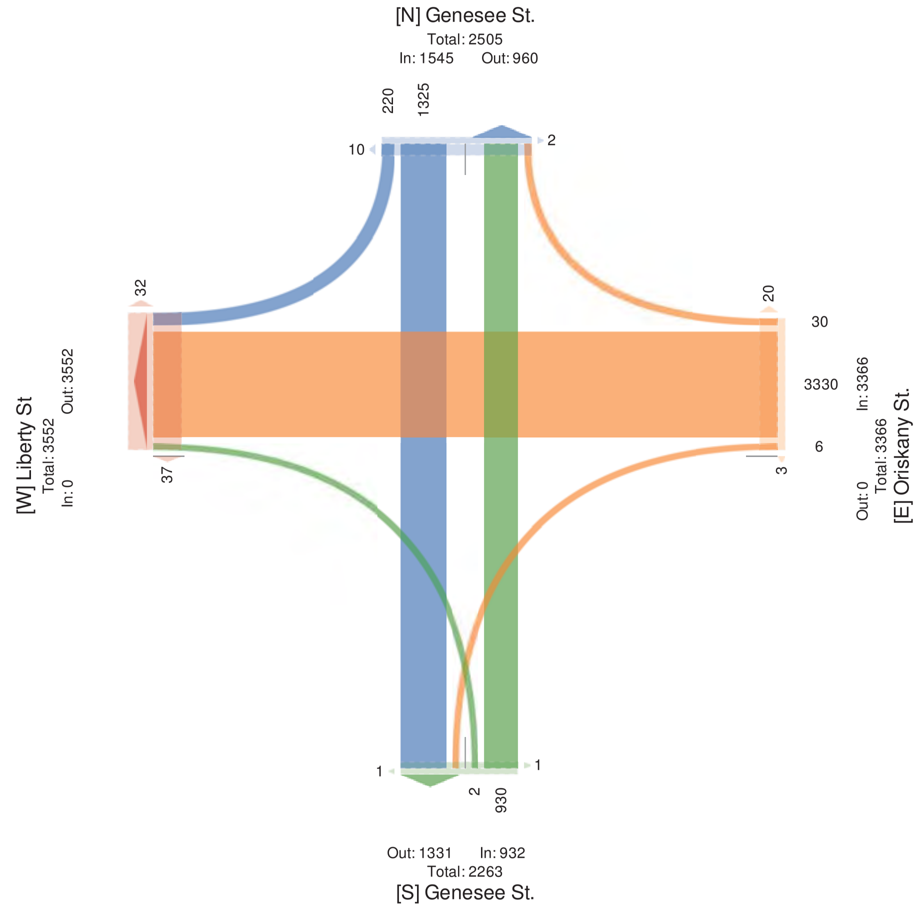
*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn



## 20. Genesee and Liberty - TMC

Thu Jul 19, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549122, Location: 43.102833, -75.228108, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US






Revised A - 124

## 20. Genesee and Liberty - TMC

Wed Jdul 18, 21 0
AM Pak( 7: 3 2AM ) 03 2AMC
Auus ukLLaL 7i ghetL8 Artgcduktа T Wrdc( LknT Sgnhua)Ung Wrdc( L8BdLaL8PaTaLtrgknL8BgcycuaL on RokT8BgcycuaLon s roLLwku( C
AuuMovamantL
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Provg TaT Ny3Wrg Stkta WrkYgc
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s oktaLvgua 8PA8l 1- , 28US

| i ah<br>Dgractgon | i gNarty St<br>f kLtNodnT | | | | | | b rgL( kny St9<br>O aLtNodnT | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Wgma | i | W | R | U | App | PaTE | i | W | R | U | RR | App | PaTE |
| , 21 0 )2: )l 1 : 3 2AM | 2 | 2 | 2 | 2 | **2** | - | 2 | , *- | 2 | 2 | l | **403** | 2 |
| : 345AM | 2 | 2 | 2 | 2 | **2** | , | , | , 01 | l | 2 | 2 | **474** | , |
| 0322AM | 2 | 2 | 2 | 2 | **2** | l | 2 | , 4, | l | 2 | 2 | **439** | , |
| 0315AM | 2 | 2 | 2 | 2 | **2** | l | l | , l, | l | 2 | 2 | **413** | 2 |
| **5 6Tot** | 2 | 2 | 2 | 2 | **2** | : | - | l 22* | - | 2 | l | **1219** | 4 |
| **a lApp%6o r** | 2% | 2% | 2% | 2% | **c** | ) | 29 % | 119 % | 29 % | 2% | 29 % | **c** | ) |
| **a l5 6Tot** | 2% | 2% | 2% | 2% | **2a** | ) | 29, % | *495% | 29, % | 2% | 29 % | **0h-2a** | ) |
| **8 . P** | ) | ) | ) | ) | **c** | ) | 29 : 5 | 290: 2 | 29 52 | ) | 29, 52 | **2-H0F** | ) |
| **LigrTs** | 2 | 2 | 2 | 2 | **2** | ) | - | 14: | , | 2 | l | **7h9** | ) |
| **a lLigrTs** | 2% | 2% | 2% | 2% | **c** | ) | l 22% | 149 % | **9 % | 2% | l 22% | **73 -1a** | ) |
| **A%T utoTedl5 %u kslondlSingtecUniT5 %u ks** | 2 | 2 | 2 | 2 | **2** | ) | 2 | 40 | l | 2 | 2 | **37** | ) |
| **a lA%T utoTedl5 %u kslondlSingtecUniT5 %u ks** | 2% | 2% | 2% | 2% | **c** | ) | 2% | 490% | - - 9 % | 2% | 2% | **3 -Ha** | ) |
| **Buses** | 2 | 2 | 2 | 2 | **2** | ) | 2 | 11 | 2 | 2 | 2 | **11** | ) |
| **a lBuses** | 2% | 2% | 2% | 2% | **c** | ) | 2% | 19 % | 2% | 2% | 2% | **1-1a** | ) |
| **Bi y tesl6nlR6od** | 2 | 2 | 2 | 2 | **2** | ) | 2 | 2 | 2 | 2 | 2 | **2** | ) |
| **a lBi y tesl6nlR6od** | 2% | 2% | 2% | 2% | **c** | ) | 2% | 2% | 2% | 2% | 2% | **2a** | ) |
| PaTaLtrgknL | ) | ) | ) | ) | ) | * | ) | ) | ) | ) | ) | ) | 4 |
| % PaTaLtrgknL | ) | ) | ) | ) | ) | 059 % | ) | ) | ) | ) | ) | ) | l 22% |
| BgcycuaLon s roLLwku( | ) | ) | ) | ) | ) | l | ) | ) | ) | ) | ) | ) | 2 |
| % BgcycuaLon s roLLwku( | ) | ) | ) | ) | ) | 149 % | ) | ) | ) | ) | ) | ) | 2% |

EPaTaLtrgknL knT BgcycuaLon s roLLwku( 9i 3i aY8R3Rghet8RR3Rghet on raT8W3Werd8U3U)Wdrn



## 20. Genesee and Liberty - TMC

Thu Jul 19, 2018
AM Peak (7:30AM - 8:30AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549122, Location: 43.102833, -75.228108, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

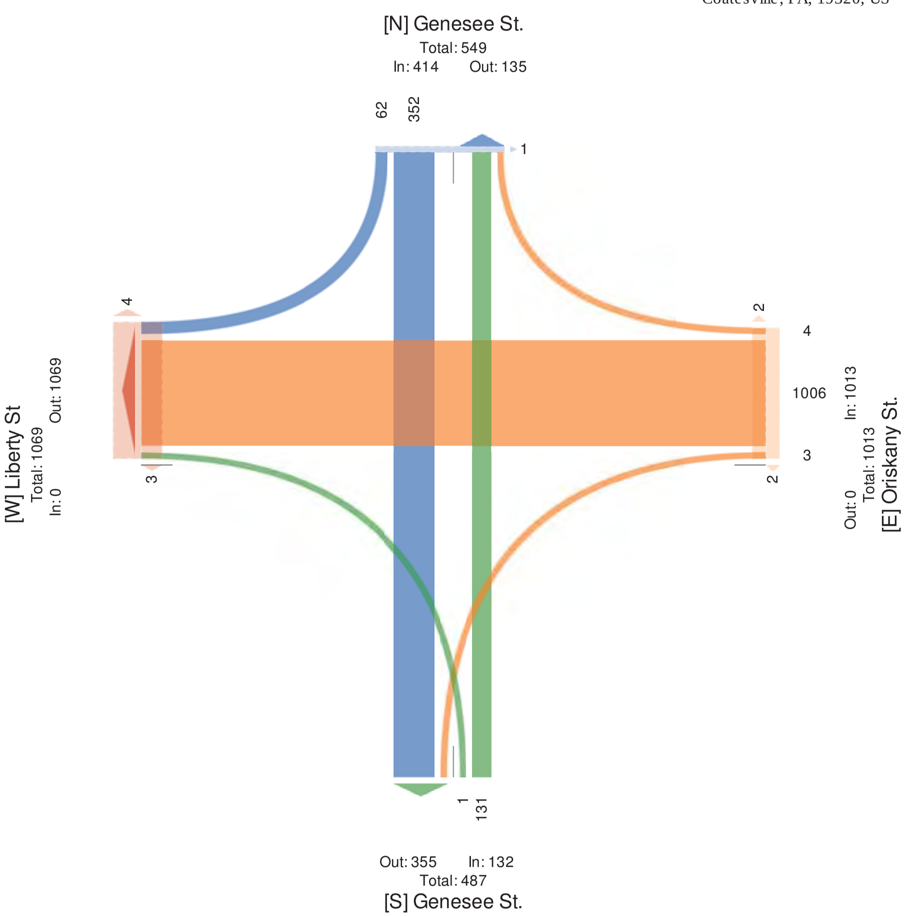
| Leg<br>Direction | Genesee St.<br>Northbound | | | | | | Genesee St.<br>Southbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | L | T | R | U | App | Ped* | L | T | R | U | RR | App | Ped* | Int |
| 2018-07-19 7:30AM | 0 | 27 | 0 | 0 | **25** | 0 | 0 | 65 | 1 | 0 | 11 | **55** | 1 | **174** |
| 7:45AM | 1 | 35 | 0 | 0 | **17** | 0 | 0 | 99 | 4 | 0 | 11 | **880** | 0 | **002** |
| 8:00AM | 0 | 34 | 0 | 0 | **10** | 0 | 0 | 96 | 17 | 0 | 4 | **885** | 0 | **130** |
| 8:15AM | 0 | 35 | 0 | 0 | **16** | 0 | 0 | 92 | 7 | 0 | 7 | **897** | 0 | **166** |
| **Total** | 1 | 131 | 0 | 0 | **812** | 0 | 0 | 352 | 29 | 0 | 33 | **080** | 1 | **8663** |
| **% Approach** | 0.8% | 99.2% | 0% | 0% | - | - | 0% | 85.0% | 7.0% | 0% | 8.0% | - | - | - |
| **% Total** | 0.1% | 8.4% | 0% | 0% | **4.6%** | - | 0% | 22.6% | 1.9% | 0% | 2.1% | **27.7%** | - | - |
| **PHF** | 0.250 | 0.936 | - | - | **9.385** | - | - | 0.889 | 0.426 | - | 0.750 | **9.446** | - | 0.882 |
| **Lights** | 1 | 119 | 0 | 0 | **829** | - | 0 | 334 | 28 | 0 | 32 | **130** | - | 1467 |
| **% Lights** | 100% | 90.8% | 0% | 0% | **39.3%** | - | 0% | 94.9% | 96.6% | 0% | 97.0% | **36.2%** | - | 94.1% |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 8 | 0 | 0 | **4** | - | 0 | 17 | 1 | 0 | 0 | **84** | - | 75 |
| **% Articulated Trucks and Single-Unit Trucks** | 0% | 6.1% | 0% | 0% | **7.8%** | - | 0% | 4.8% | 3.4% | 0% | 0% | **0.1%** | - | 4.8% |
| **Buses** | 0 | 3 | 0 | 0 | **1** | - | 0 | 1 | 0 | 0 | 1 | **2** | - | 16 |
| **% Buses** | 0% | 2.3% | 0% | 0% | **2.1%** | - | 0% | 0.3% | 0% | 0% | 3.0% | **9.6%** | - | 1.0% |
| **Bicycles on Road** | 0 | 1 | 0 | 0 | **8** | - | 0 | 0 | 0 | 0 | 0 | **9** | - | 1 |
| **% Bicycles on Road** | 0% | 0.8% | 0% | 0% | **9.4%** | - | 0% | 0% | 0% | 0% | 0% | **9%** | - | 0.1% |
| Pedestrians | - | - | - | - | - | 0 | - | - | - | - | - | - | 1 | |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | 100% | - |
| Bicycles on Crosswalk | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | 0% | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

## 20. Genesee and Liberty - TMC

Thu Jul 19, 2018
AM Peak (7:30AM - 8:30AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549122, Location: 43.102833, -75.228108, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US






## 20. Genesee and Liberty - TMC

Wed Jdul 18, 21 0
ForcPa kP(7 :4k5 AMk5 -
) uuCu(ssPs :Ligelrs8) rhicdu(hPa Wrdc7s (t a Tit guPAn t ihWrdc7s8SdsPs8kPaPshri(t s8SicUcuPs ot Bo(a8SicUcuPs ot Crossy (u7-
) uu5 oRPwPt hs
vmI M411 , , 8Loc(hiot I4D9 2, 0DD8A3M9 , 01 208TihP CoaPIn hic(8. Py 6 or7

kroRiaPa NUI WriATh(hP Wr( YYc m(h(8vt c9
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| LPg mirPchiot | LiNPrhUTh f (shNodt a | | | | | | b ris7(t UTh9 OPshNodt a | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WiwP | L | W | B | n | App | kPa E | L | W | B | n | BB | App | kPa E |
| , 210A23A1 4I22k5 | 2 | 2 | 2 | 2 | **2** | , | 1 | , , 1 | 4 | 2 | 1 | **403** | 1 |
| 4I1 Mk5 | 2 | 2 | 2 | 2 | **2** | 0 | 2 | 101 | 1 | 2 | 2 | **792** | 1 |
| 4ID2k5 | 2 | 2 | 2 | 2 | **2** | 1 | 2 | , 1* | , | 2 | 2 | **471** | 1 |
| 4I4Mk5 | 2 | 2 | 2 | 2 | **2** | 1 | 2 | 101 | 1 | 2 | 2 | **792** | , |
| **5 o'lot** | **2** | **2** | **2** | **2** | **2** | . 0 | 1 | 0. D | 0 | 2 | 1 | **100** | M |
| **a lApp%o r** | 2% | 2% | 2% | 2% | **c** | A | 291% | 1090% | 192% | 2% | 291% | **c** | A |
| **a l5 6Tot** | 2% | 2% | 2% | 2% | **2a** | A | 291% | M91% | 29M% | 2% | 291% | **37h a** | A |
| **8. P** | A | A | A | A | **c** | A | 29, M2 | 29010 | 29M22 | A | 29, M2 | **2h11H** | A |
| **FLi r Tg** | 2 | 2 | 2 | 2 | **2** | A | 1 | 314 | 0 | 2 | 1 | **12s** | A |
| **a lFLi r Tg** | 2% | 2% | 2% | 2% | **c** | A | 122% | 1*9M% | 122% | 2% | 122% | **9H13a** | A |
| **A%L utoTedl5 %u kglondlSLni tecUnII5 %u kg** | 2 | 2 | 2 | 2 | **2** | A | 2 | , 0 | 2 | 2 | 2 | **41** | A |
| **a lA%L utoTedl5 %u kglondlSLni tecUnII5 %u kg** | 2% | 2% | 2% | 2% | **c** | A | 2% | D94% | 2% | 2% | 2% | **0hs a** | A |
| **Bugeg** | 2 | 2 | 2 | 2 | **2** | A | 2 | 1 | 2 | 2 | 2 | **7** | A |
| **a lBugeg** | 2% | 2% | 2% | 2% | **c** | A | 2% | 291% | 2% | 2% | 2% | **2h7a** | A |
| **BLy tegl6nlR6od** | 2 | 2 | 2 | 2 | **2** | A | 2 | 2 | 2 | 2 | 2 | **2** | A |
| **a lBLy tegl6nlR6od** | 2% | 2% | 2% | 2% | **c** | A | 2% | 2% | 2% | 2% | 2% | **2a** | A |
| kPaPshri(t s | A | A | A | A | A | , D | A | A | A | A | A | A | D |
| % kPaPshri(t s | A | A | A | A | A | 0, 91% | A | A | A | A | A | A | *292% |
| SicUcuPs ot Crossy (u7 | A | A | A | A | A | M | A | A | A | A | A | A | , |
| % SicUcuPs ot Crossy (u7 | A | A | A | A | A | 1391% | A | A | A | A | A | A | 4292% |

E kPaPshri(t s (t a SicUcuPs ot Crossy (u79LI LPY8BI Bigeh8BBI Bigehot rPa8WI Werd8n In AWdrt

**20. Genesee and Liberty - TMC**
Thu Jul 19, 2018
Forced Peak (4PM - 5PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549122, Location: 43.102833, -75.228108, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

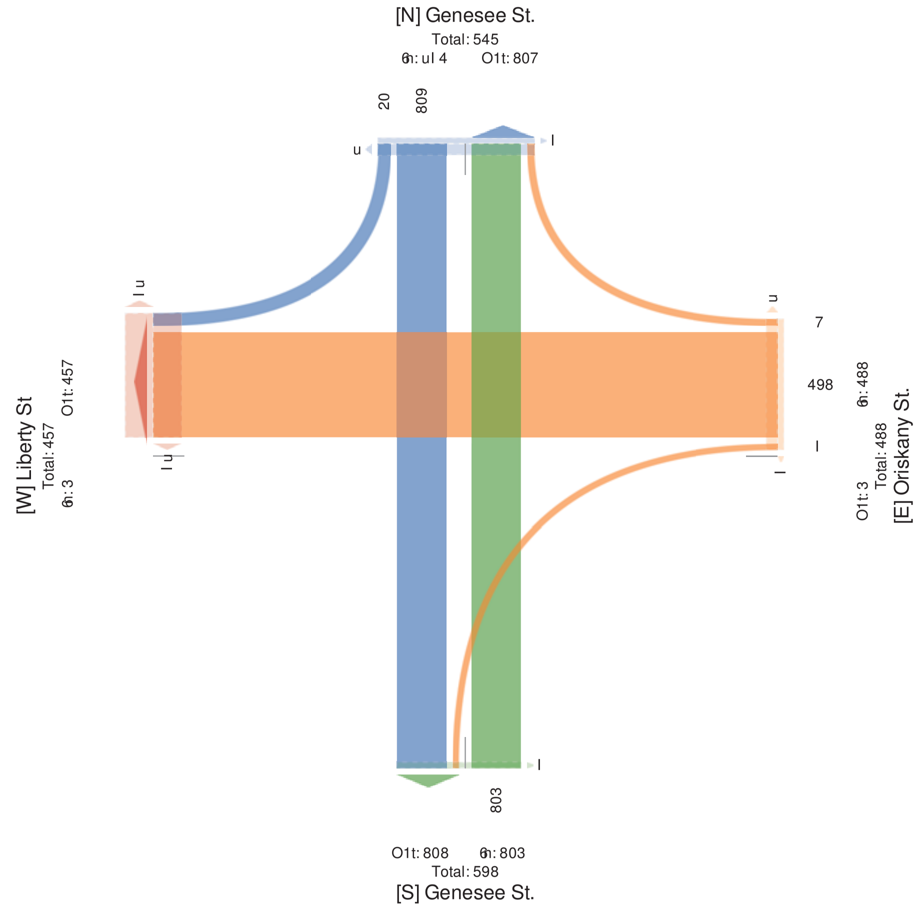
| Leg<br>Direction | Genesee St.<br>Northbound | | | | | | Genesee St.<br>Southbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | L | T | R | U | App | Ped* | L | T | R | U | RR | App | Ped* | Int |
| 2018-07-19 4:00PM | 0 | 84 | 0 | 0 | 25 | 0 | 0 | 97 | 13 | 0 | 5 | 117 | 1 | 545 |
| 4:15PM | 0 | 87 | 0 | 0 | 28 | 0 | 0 | 101 | 8 | 0 | 4 | 114 | 2 | 403 |
| 4:30PM | 0 | 94 | 0 | 0 | 05 | 0 | 0 | 76 | 15 | 0 | 5 | 06 | 0 | 532 |
| 4:45PM | 0 | 95 | 0 | 0 | 07 | 1 | 0 | 88 | 5 | 0 | 1 | 05 | 2 | 480 |
| 9 ıtoa | 0 | 360 | 0 | 0 | 463 | 1 | 0 | 362 | 41 | 0 | 15 | 512 | 5 | 1611 |
| l %App Torc | 0% | 100% | 0% | 0% | h | - | 0% | 86.6% | 9.8% | 0% | 3.6% | h | - | - |
| l % Ttoa | 0% | 22.3% | 0% | 0% | - - .4l | - | 0% | 22.5% | 2.5% | 0% | 0.9% | - 7.0l | - | - |
| PHF | - | 0.947 | - | - | 3.058 | - | - | 0.896 | 0.683 | - | 0.750 | 3.030 | - | 0.928 |
| Ligcts | 0 | 353 | 0 | 0 | 474 | - | 0 | 356 | 39 | 0 | 15 | 513 | - | 1567 |
| l %Ligcts | 0% | 98.1% | 0% | 0% | 02.1l | - | 0% | 98.3% | 95.1% | 0% | 100% | 02.1l | - | 97.3% |
| A tiruaoted% urks%nd%ingaelUnit% urks | 0 | 2 | 0 | 0 | - | - | 0 | 3 | 1 | 0 | 0 | 5 | - | 34 |
| l %A tiruaoted% urks%nd%ingaelUnit% urks | 0% | 0.6% | 0% | 0% | 3.6l | - | 0% | 0.8% | 2.4% | 0% | 0% | 1.3l | - | 2.1% |
| Buses | 0 | 2 | 0 | 0 | - | - | 0 | 3 | 1 | 0 | 0 | 5 | - | 7 |
| l %Buses | 0% | 0.6% | 0% | 0% | 3.6l | - | 0% | 0.8% | 2.4% | 0% | 0% | 1.3l | - | 0.4% |
| Biryraes%n%RTod | 0 | 3 | 0 | 0 | 4 | - | 0 | 0 | 0 | 0 | 0 | 3 | - | 3 |
| l %Biryraes%n%RTod | 0% | 0.8% | 0% | 0% | 3.2l | - | 0% | 0% | 0% | 0% | 0% | 3l | - | 0.2% |
| Pedestrians | - | - | - | - | - | 1 | - | - | - | - | - | - | 3 | |
| % Pedestrians | - | - | - | - | - | 100% | - | - | - | - | - | - | 60.0% | - |
| Bicycles on Crosswalk | - | - | - | - | - | 0 | - | - | - | - | - | - | 2 | |
| % Bicycles on Crosswalk | - | - | - | - | - | 0% | - | - | - | - | - | - | 40.0% | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn



**20. Genesee and Liberty - TMC**
Thu Jul 19, 2018
Forced Peak (7P: 45P: A
Ml - la))e) (CsLhi), Mrisculaied Truck) agd t sgLle4n gsi Truck), Su)e), Pede)irsag), SscUcle) og Boad, SscUcle) og - ro))y alkA
Ml : oRewegi)
vmI 579122, Cocaisog17D3028DD, 4 53228108, t sie - odeI n isca, Ney York

ProRsded bUI Trs4 iaie Traffsc maia, vgc3
187 Saker Boad,
- oaie) Rslle, PM, 19D20, n t



## 20. Genesee and Liberty - TMC

Wed Jdul 18, 2l 0
PM Pak( 4-5l ) PM O) 5l ) PMvOr HaokuuPak( ACdo
s uuLukiiai 4ght eci 8s ochTdukcan WodT(i kSn UhSt uaOBShc WodT(i 8y di ai 8Panai colkSi 8y hTRTuai CS wCkn8y hTRTuai CS LoCiimku(v
s uuMCHaI aSci
D 5) - 1l , , 8gCTkdCS5- 93l 2, 0998O) 3, , 0l 208Uhca LCna5BdhTk87 am6 Co(

PoCHlnan NR5WohOUckca WokYhT
: kck8DST3
l 0- yk(aowCkn8
LCkcai Hhua 8Ps 8l 19, 28BU

| gat<br>: hoa TdhCS | ghNaodRUc<br>bki cNCdSn | | | | | | r ohi ( kSRUc3<br>f ai cNCdSn | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WhI a | g | W | w | B | App | PanE | g | W | w | B | ww | App | PanE |
| , 2l 0O2. 0l 1 - 5l ) PM | 2 | 2 | 2 | 2 | **0** | 0 | 2 | 101 | l | 2 | 2 | **190** | l |
| - 592PM | 2 | 2 | 2 | 2 | **0** | 1 | 2 | , l * | , | 2 | 2 | **218** | l |
| - 5- ) PM | 2 | 2 | 2 | 2 | **0** | 1 | 2 | 101 | l | 2 | 2 | **190** | , |
| ) 522PM | 2 | 2 | 2 | 2 | **0** | ) | 2 | , l . | ) | 2 | 2 | **222** | 2 |
| **Total** | 2 | 2 | 2 | 2 | **0** | 9l | 2 | 0ll | 1 | 2 | 2 | **820** | - |
| **% Approach** | 2% | 2% | 2% | 2% | - | O | 2% | 103l % | l 3l % | 2% | 2% | - | O |
| **% Total** | 2% | 2% | 2% | 2% | **0%** | O | 2% | ) 239% | 23*% | 2% | 2% | **50.8%** | O |
| **PHF** | O | O | O | O | - | O | O | 23l 9- | 23- ) 2 | O | O | **0.923** | O |
| **Lights** | 2 | 2 | 2 | 2 | **0** | O | 2 | . 09 | 1 | 2 | 2 | **792** | O |
| **% Lights** | 2% | 2% | 2% | 2% | - | O | 2% | 1*3) % | l 22% | 2% | 2% | **96.6%** | O |
| **Articulated Trucks and Single-Unit Trucks** | 2 | 2 | 2 | 2 | **0** | O | 2 | , * | 2 | 2 | 2 | **26** | O |
| **% Articulated Trucks and Single-Unit Trucks** | 2% | 2% | 2% | 2% | - | O | 2% | 93, % | 2% | 2% | 2% | **3.2%** | O |
| **Buses** | 2 | 2 | 2 | 2 | **0** | O | 2 | , | 2 | 2 | 2 | **2** | O |
| **% Buses** | 2% | 2% | 2% | 2% | - | O | 2% | 23, % | 2% | 2% | 2% | **0.2%** | O |
| **Bicycles on Road** | 2 | 2 | 2 | 2 | **0** | O | 2 | 2 | 2 | 2 | 2 | **0** | O |
| **% Bicycles on Road** | 2% | 2% | 2% | 2% | - | O | 2% | 2% | 2% | 2% | 2% | **0%** | O |
| Panai colkSi | O | O | O | O | O | , . | O | O | O | O | O | O | 9 |
| % Panai colkSi | O | O | O | O | O | 0. 3l % | O | O | O | O | O | O | . ) 32% |
| y hTRTuai CS LoCiimku( | O | O | O | O | O | - | O | O | O | O | O | O | l |
| % y hTRTuai CS LoCiimku( | O | O | O | O | O | l , 3l % | O | O | O | O | O | O | , ) 32% |

EPanai colkSi kSn y hTRTuai CS LoCiimku( 3g5gaY8w5wht ec8ww5wht ecCS oan8W5Weod8B5BOWdoS



## 20. Genesee and Liberty - TMC

Thu Jul 19, 2018
PM Peak (4:15PM - 5:15PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549122, Location: 43.102833, -75.228108, Site Code: Utica, New York

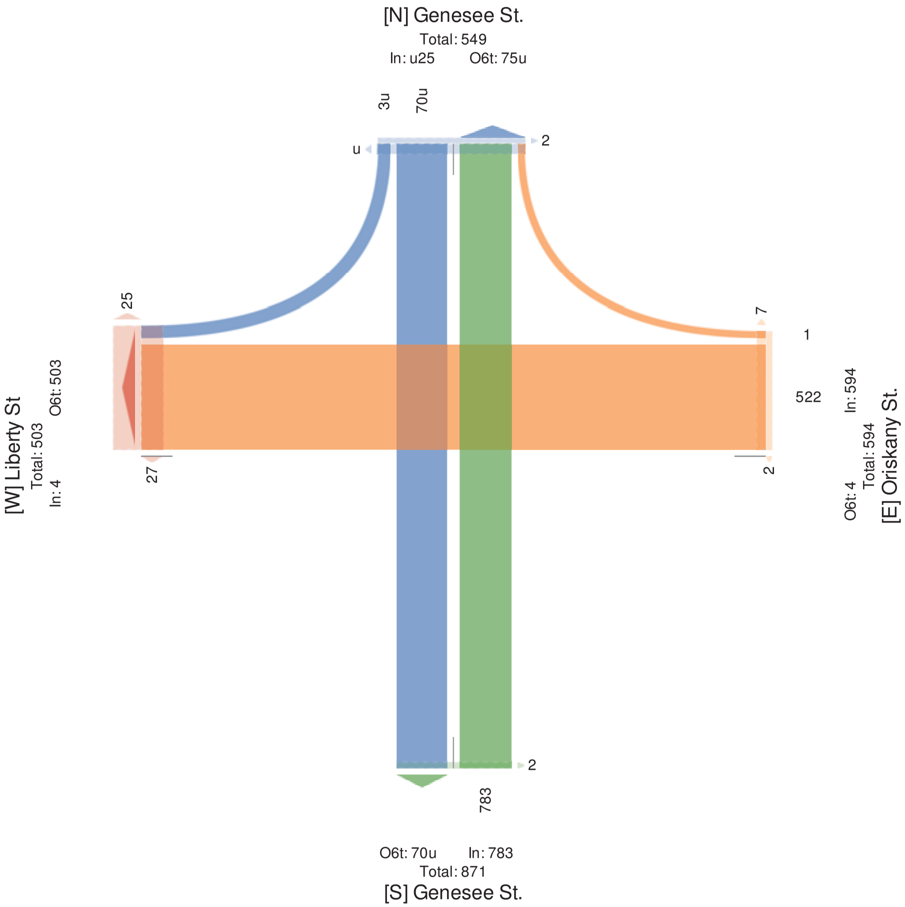
Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg<br>Direction | Genesee St.<br>Northbound | | | | | | Genesee St.<br>Southbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | L | T | R | U | App | Ped* | L | T | R | U | RR | App | Ped* | Int |
| 2018-07-19 4:15PM | 0 | 87 | 0 | 0 | **25** | 0 | 0 | 101 | 8 | 0 | 4 | **117** | 2 | **748** |
| 4:30PM | 0 | 94 | 0 | 0 | **40** | 0 | 0 | 76 | 15 | 0 | 5 | **43** | 0 | **082** |
| 4:45PM | 0 | 95 | 0 | 0 | **46** | 1 | 0 | 88 | 5 | 0 | 1 | **40** | 2 | **754** |
| 5:00PM | 0 | 99 | 0 | 0 | **44** | 0 | 0 | 99 | 11 | 0 | 5 | **116** | 1 | **073** |
| **9 Ttoa** | 0 | 375 | 0 | 0 | **756** | 1 | 0 | 364 | 39 | 0 | 15 | **012** | 5 | **1317** |
| **l %App Torc** | 0% | 100% | 0% | 0% | **h** | - | 0% | 87.1% | 9.3% | 0% | 3.6% | **h** | - | - |
| **l %Ttoa** | 0% | 23.2% | 0% | 0% | **- 7.- l** | - | 0% | 22.6% | 2.4% | 0% | 0.9% | **- 6.4l** | - | - |
| **PHF** | - | 0.947 | - | - | **8.405** | - | - | 0.901 | 0.650 | - | 0.750 | **8.484** | - | 0.925 |
| **Ligcts** | 0 | 370 | 0 | 0 | **758** | - | 0 | 359 | 37 | 0 | 15 | **011** | - | 1573 |
| **l %Ligcts** | 0% | 98.7% | 0% | 0% | **42.5l** | - | 0% | 98.6% | 94.9% | 0% | 100% | **42.7l** | - | 97.5% |
| **A tiruaoted% urks%nd%ingaeUnit% urks** | 0 | 2 | 0 | 0 | **-** | - | 0 | 2 | 1 | 0 | 0 | **7** | - | 31 |
| **l %A tiruaoted% urks%nd%ingaeUnit% urks** | 0% | 0.5% | 0% | 0% | **8.6l** | - | 0% | 0.5% | 2.6% | 0% | 0% | **8.5l** | - | 1.9% |
| **Buses** | 0 | 2 | 0 | 0 | **-** | - | 0 | 3 | 1 | 0 | 0 | **0** | - | 8 |
| **l %Buses** | 0% | 0.5% | 0% | 0% | **8.6l** | - | 0% | 0.8% | 2.6% | 0% | 0% | **1.8l** | - | 0.5% |
| **Biryraes%n%RTod** | 0 | 1 | 0 | 0 | **1** | - | 0 | 0 | 0 | 0 | 0 | **8** | - | 1 |
| **l %Biryraes%n%RTod** | 0% | 0.3% | 0% | 0% | **8.7l** | - | 0% | 0% | 0% | 0% | 0% | **8l** | - | 0.1% |
| Pedestrians | - | - | - | - | - | 1 | - | - | - | - | - | - | 4 | |
| % Pedestrians | - | - | - | - | - | 100% | - | - | - | - | - | - | 80.0% | - |
| Bicycles on Crosswalk | - | - | - | - | - | 0 | - | - | - | - | - | - | 1 | |
| % Bicycles on Crosswalk | - | - | - | - | - | 0% | - | - | - | - | - | - | 20.0% | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

**20. Genesee and Liberty - TMC**
Thu Jul 19, 2018
PM Peak (4:15PM - 5:15PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549122, Location: 43.102833, -75.228108, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US






**21. Genesee & Oriskany - TMC**
Wed Jdul 18, 21 0
FduLngt he (7AM-1AM894M-P4M6
Au) uGana (Lst eha8Aihsr duCmc WdrTa Cgc ksgt un-SgshWdrTa8Udana84ncnalisCga8UsrBruna yg o yCc8UsrBruna yg ) iyaaRCdiT6
AuMywnv ngha
ml D: 900P08LyrCnsygD953 2, P, 58-7: 3, 00: P8kshn ) ycnDShsrC8. nR NyiT

4iywscnc YBDWs-khCm WiCbsr I CtC8ngr3
1 09 UCTni o yCc8
) yCnawsun84A8l 15, 28S k

| Lnt<br>I sinrhsyg<br>Wsv n | f isaTCgBkh<br>OCahYydgc | | | | | | | f isaTCgBkh<br>E nahYydgc | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | W | o | S | oo | App | 4nc* | L | W | o | S | oo | App | 4nc* |
| , 210-27-11 7D2 AM | 2 | 1, 1 | 11 | 2 | 15 | 151 | 5 | 2 | 2 | 2 | 2 | 2 | 7 | 1 |
| 7D: AM | 2 | 109 | 1P | 2 | , 1 | 221 | : | 2 | 2 | 2 | 2 | 2 | 7 | 2 |
| 7D32 AM | 1 | , 2, | , : | 2 | : | 200 | : | 2 | 2 | 2 | 2 | 2 | 7 | 2 |
| 7D9: AM | 2 | , 2: | 5, | 2 | 12 | 243 | , | 2 | 2 | 2 | 2 | 2 | 7 | , |
| HydiuB WyhCu | 1 | 7, 2 | 1, | 2 | 91 | 952 | 1: | 2 | 2 | 2 | 2 | 2 | 7 | 5 |
| 0D2 2 AM | 2 | 105 | , 7 | 2 | 0 | 219 | 1 | 2 | 2 | 2 | 2 | 2 | 7 | , |
| 0D: AM | 1 | 1Pl | 91 | 2 | 1 | 212 | 1 | 2 | 2 | 2 | 2 | 2 | 7 | 1 |
| 0D32 AM | 1 | 1P0 | , , | 2 | 19 | 278 | 9 | 2 | 2 | 2 | 2 | 2 | 7 | 5 |
| 0D9: AM | 2 | 159 | , P | 2 | 17 | 133 | 5 | 2 | 2 | 2 | 2 | 2 | 7 | 9 |
| HydiuB WyhCu | , | P9P | 11P | 2 | 90 | 912 | 1 | 2 | 2 | 2 | 2 | 2 | 7 | 12 |
| 1D2 2 AM | 2 | 2 | 2 | 2 | 2 | 7 | 2 | 2 | 2 | 2 | 2 | 2 | 7 | 2 |
| HydiuB WyhCu | 2 | 2 | 2 | 2 | 2 | 7 | 2 | 2 | 2 | 2 | 2 | 2 | 7 | 2 |
| 9D2 24M | 2 | , 5, | 55 | 2 | 1 | 234 | 1 | 2 | 2 | 2 | 2 | 2 | 7 | 2 |
| 9D: 4M | 2 | , 51 | , 2 | 2 | 7 | 255 | P | 2 | 2 | 2 | 2 | 2 | 7 | 1 |
| 9D324M | 2 | 520 | , 5 | 2 | P | 003 | 11 | 2 | 2 | 2 | 2 | 2 | 7 | 1 |
| 9D9: 4M | 1 | , 57 | 1: | 2 | P | 286 | P | 2 | 2 | 2 | 2 | 2 | 7 | 5 |
| HydiuB WyhCu | 1 | 121P | 11 | 2 | , 0 | 1105 | , 9 | 2 | 2 | 2 | 2 | 2 | 7 | : |
| : D2 24M | 1 | , 09 | 1, | 2 | 1: | 012 | 7 | 2 | 2 | 2 | 2 | 2 | 7 | 2 |
| : D: 4M | 2 | , P0 | 19 | 2 | 1 | 261 | 5 | 2 | 2 | 2 | 2 | 2 | 7 | , |
| : D324M | 1 | , 11 | 12 | 2 | : | 223 | : | 2 | 2 | 2 | 2 | 2 | 7 | P |
| : D9: 4M | 1 | 100 | 10 | 2 | 0 | 218 | 1 | 2 | 2 | 2 | 2 | 2 | 7 | 2 |
| HydiuB WyhCu | 5 | 1: 1 | : 9 | 2 | 57 | 1748 | 1P | 2 | 2 | 2 | 2 | 2 | 7 | 0 |
| PD2 24M | 2 | 2 | 2 | 2 | 2 | 7 | 2 | 2 | 2 | 2 | 2 | 2 | 7 | 2 |
| HydiuB WyhCu | 2 | 2 | 2 | 2 | 2 | 7 | 2 | 2 | 2 | 2 | 2 | 2 | 7 | 2 |
| **Total** | 7 | 5555 | 5: 5 | 2 | 1P, | **0988** | P9 | 2 | 2 | 2 | 2 | 2 | 7 | , P |
| **% Approach** | 23, % | 0P3 % | 13, % | 2% | 93, % | - | - | 2% | 2% | 2% | 2% | 2% | - | - |
| **% Total** | 23 % | : , 37% | : 3P% | 2% | , 3P% | **51.7%** | - | 2% | 2% | 2% | 2% | 2% | **7%** | - |
| **Lights** | P | 5171 | 590 | 2 | 1P2 | **0598** | - | 2 | 2 | 2 | 2 | 2 | 7 | - |
| **% Lights** | 0: 37% | 1: 3% | 103P% | 2% | 1033% | **68.5%** | - | 2% | 2% | 2% | 2% | 2% | - | - |
| **Articulated Trucks and Single-Unit Trucks** | 1 | 151 | : | 2 | 1 | **145** | - | 2 | 2 | 2 | 2 | 2 | 7 | - |
| **% Articulated Trucks and Single-Unit Trucks** | 1935% | 93, % | 139% | 2% | 23P% | **0.9%** | - | 2% | 2% | 2% | 2% | 2% | - | - |
| **Buses** | 2 | , 5 | 2 | 2 | 2 | **20** | - | 2 | 2 | 2 | 2 | 2 | 7 | - |
| **% Buses** | 2% | 237% | 2% | 2% | 2% | **7.5%** | - | 2% | 2% | 2% | 2% | 2% | - | - |
| **Bicycles on Road** | 2 | 2 | 2 | 2 | 1 | **1** | - | 2 | 2 | 2 | 2 | 2 | 7 | - |
| **% Bicycles on Road** | 2% | 2% | 2% | 2% | 23P% | **7%** | - | 2% | 2% | 2% | 2% | 2% | - | - |
| 4ncnalisCga | - | - | - | - | - | - | : 7 | - | - | - | - | - | - | , P |
| % 4ncnalisCga | - | - | - | - | - | - | 013 % | - | - | - | - | - | - | 122% |
| UsrBruna yg ) iyaaRCdiT | - | - | - | - | - | - | 7 | - | - | - | - | - | - | 2 |
| % UsrBruna yg ) iyaaRCdiT | - | - | - | - | - | - | 1231% | - | - | - | - | - | - | 2% |

*4ncnalisCga Cgc UsrBruna yg ) iyaaRCdiT3LDLnbH8o Dost elB8o o Dost ehyg inc8WDWeid8S DS-Wdig



Revised A - 129

**21. Genesee & Oriskany - TMC**
Thu Jul 19, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 548868, Location: 43.102623, -75.228856, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

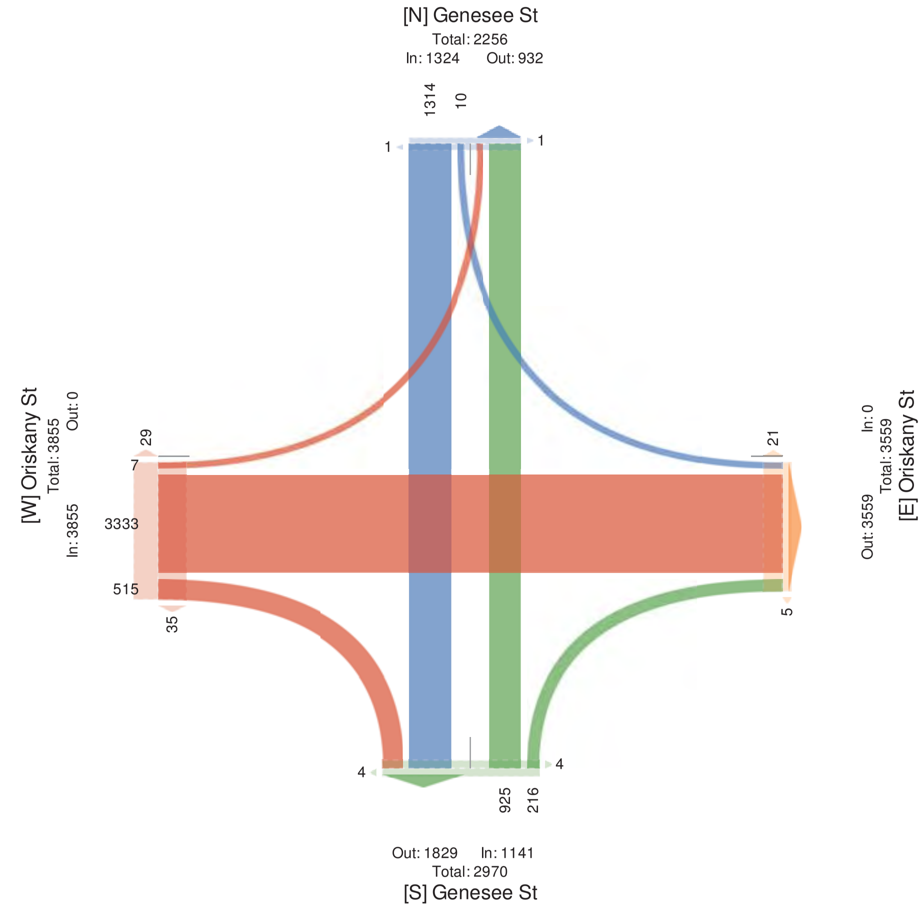
| Leg | Genesee St | | | | | | | Genesee St | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Northbound | | | | | | | Southbound | | | | | | | |
| Time | L | T | R | U | RR | App | Ped* | L | T | R | U | RR | App | Ped* | Int |
| 2018-07-19 7:00AM | 0 | 25 | 6 | 0 | 1 | **16** | 0 | 0 | 44 | 0 | 0 | 0 | **22** | 1 | **618** |
| 7:15AM | 0 | 28 | 6 | 0 | 0 | **12** | 0 | 0 | 66 | 0 | 0 | 0 | **55** | 0 | **164** |
| 7:30AM | 0 | 24 | 10 | 0 | 0 | **12** | 0 | 1 | 70 | 0 | 0 | 0 | **84** | 0 | **113** |
| 7:45AM | 0 | 36 | 10 | 0 | 0 | **25** | 0 | 2 | 96 | 0 | 0 | 0 | **93** | 0 | **194** |
| Hourly Total | 0 | 113 | 32 | 0 | 1 | **425** | 0 | 3 | 276 | 0 | 0 | 0 | **689** | 1 | **4638** |
| 8:00AM | 0 | 37 | 4 | 0 | 3 | **22** | 1 | 0 | 99 | 0 | 0 | 0 | **99** | 0 | **154** |
| 8:15AM | 0 | 33 | 6 | 0 | 4 | **21** | 1 | 3 | 93 | 0 | 0 | 0 | **95** | 0 | **174** |
| 8:30AM | 0 | 43 | 12 | 0 | 1 | **75** | 2 | 0 | 92 | 0 | 0 | 0 | **96** | 0 | **171** |
| 8:45AM | 0 | 46 | 8 | 0 | 0 | **72** | 1 | 0 | 93 | 0 | 0 | 0 | **91** | 0 | **162** |
| Hourly Total | 0 | 159 | 30 | 0 | 8 | **498** | 5 | 3 | 377 | 0 | 0 | 0 | **130** | 0 | **4139** |
| 9:00AM | 0 | 0 | 0 | 0 | 0 | **0** | 0 | 0 | 0 | 0 | 0 | 0 | **0** | 0 | **0** |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | **0** | 0 | 0 | 0 | 0 | 0 | 0 | **0** | 0 | **0** |
| 4:00PM | 0 | 87 | 15 | 0 | 0 | **406** | 0 | 1 | 96 | 0 | 0 | 0 | **98** | 0 | **281** |
| 4:15PM | 0 | 89 | 21 | 0 | 0 | **440** | 0 | 0 | 93 | 0 | 0 | 0 | **91** | 0 | **259** |
| 4:30PM | 0 | 95 | 22 | 0 | 1 | **443** | 0 | 0 | 79 | 0 | 0 | 0 | **89** | 0 | **712** |
| 4:45PM | 0 | 90 | 18 | 0 | 2 | **440** | 1 | 2 | 81 | 0 | 0 | 0 | **31** | 1 | **276** |
| Hourly Total | 0 | 361 | 76 | 0 | 3 | **220** | 1 | 3 | 349 | 0 | 0 | 0 | **176** | 1 | **4963** |
| 5:00PM | 0 | 104 | 17 | 0 | 0 | **464** | 2 | 0 | 101 | 0 | 0 | 0 | **404** | 0 | **712** |
| 5:15PM | 0 | 66 | 20 | 0 | 2 | **33** | 0 | 0 | 70 | 0 | 0 | 0 | **80** | 0 | **229** |
| 5:30PM | 0 | 56 | 10 | 0 | 3 | **59** | 0 | 1 | 74 | 0 | 0 | 0 | **87** | 0 | **184** |
| 5:45PM | 0 | 64 | 14 | 0 | 0 | **83** | 0 | 0 | 67 | 0 | 0 | 0 | **58** | 0 | **150** |
| Hourly Total | 0 | 290 | 61 | 0 | 5 | **175** | 2 | 1 | 312 | 0 | 0 | 0 | **141** | 0 | **4842** |
| 6:00PM | 0 | 2 | 0 | 0 | 0 | **6** | 0 | 0 | 0 | 0 | 0 | 0 | **0** | 0 | **6** |
| Hourly Total | 0 | 2 | 0 | 0 | 0 | **6** | 0 | 0 | 0 | 0 | 0 | 0 | **0** | 0 | **6** |
| **Total** | 0 | 925 | 199 | 0 | 17 | **4424** | 8 | 10 | 1314 | 0 | 0 | 0 | **4162** | 2 | **5160** |
| **% Approach** | 0% | 81.1% | 17.4% | 0% | 1.5% | - | - | 0.8% | 99.2% | 0% | 0% | 0% | - | - | - |
| **% Total** | 0% | 14.6% | 3.1% | 0% | 0.3% | **43.4%** | - | 0.2% | 20.8% | 0% | 0% | 0% | **60.9%** | - | - |
| **Lights** | 0 | 894 | 189 | 0 | 17 | **4400** | - | 10 | 1272 | 0 | 0 | 0 | **4636** | - | 6067 |
| **% Lights** | 0% | 96.6% | 95.0% | 0% | 100% | **95.2%** | - | 100% | 96.8% | 0% | 0% | 0% | **95.3%** | - | 96.0% |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 19 | 9 | 0 | 0 | **63** | - | 0 | 31 | 0 | 0 | 0 | **14** | - | 205 |
| **% Articulated Trucks and Single-Unit Trucks** | 0% | 2.1% | 4.5% | 0% | 0% | **6.7%** | - | 0% | 2.4% | 0% | 0% | 0% | **6.1%** | - | 3.2% |
| **Buses** | 0 | 10 | 0 | 0 | 0 | **40** | - | 0 | 10 | 0 | 0 | 0 | **40** | - | 43 |
| **% Buses** | 0% | 1.1% | 0% | 0% | 0% | **0.9%** | - | 0% | 0.8% | 0% | 0% | 0% | **0.3%** | - | 0.7% |
| **Bicycles on Road** | 0 | 2 | 1 | 0 | 0 | **1** | - | 0 | 1 | 0 | 0 | 0 | **4** | - | 5 |
| **% Bicycles on Road** | 0% | 0.2% | 0.5% | 0% | 0% | **0.1%** | - | 0% | 0.1% | 0% | 0% | 0% | **0.4%** | - | 0.1% |
| Pedestrians | - | - | - | - | - | - | 8 | - | - | - | - | - | - | 2 | |
| % Pedestrians | - | - | - | - | - | - | 100% | - | - | - | - | - | - | 100% | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 0% | - | - | - | - | - | - | 0% | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn



**21. Genesee & Oriskany - TMC**
Thu Jul 19, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 548868, Location: 43.102623, -75.228856, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US



## 21. Genesee & Oriskany - TMC

Wed Jdul 18, 21 0
AM Pak( 7: 3 ) AM C03 ) AMs
AuLukiiai 7ght eri 8AcrhTdukran WcdT(i kSn UhSt uaCBShr WcdT(i 8ydiai 8PanaircdkSi 8yhToTuai RS wRkn8yhToTuai RS LcRiiv ku(s
AuuMRmaI aSri
D5 3) - 00408gRTkrhRS3- 9.l 2, 4, 98C ) ., , 00) 48Uhra LRna3BrhTk86av NRc(

PcRmhnan Yo3WchCUrkra WckbhT
5 krk8DST.
l 0- yk(acwRkn8
LRkraimhua8PA8l 19, 28BU

| gat<br>5 hcaTrhRS | f chi(kSo Ur<br>OkirYRdSn | | | | | | | f chi(kSo Ur<br>EairYRdSn | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Whl a | g | W | w | B | ww | **App** | Pan* | g | W | w | B | ww | **App** | Pan* |
| , 210C2: C1 : 3 ) AM | 2 | , 2) | 9, | 2 | 12 | **240** | , | 2 | 2 | 2 | 2 | 2 | **3** | , |
| 0322AM | 2 | 109 | , : | 2 | 0 | **279** | l | 2 | 2 | 2 | 2 | 2 | **3** | , |
| 03l ) AM | l | 141 | - l | 2 | 1 | **272** | l | 2 | 2 | 2 | 2 | 2 | **3** | l |
| 0392AM | l | 140 | , , | 2 | l - | **231** | - | 2 | 2 | 2 | 2 | 2 | **3** | 9 |
| **5 6Tbt** | . | : l : | l . . | 2 | - l | **992** | 0 | 2 | 2 | 2 | 2 | 2 | **3** | 0 |
| **a lApp%o r** | 2., % | 01.9% | 19.0% | 2% | - .4% | **c** | C | 2% | 2% | 2% | 2% | 2% | **c** | C |
| **a l5 6Tbt** | 2.1% | - 1., % | 0.- % | 2% | , .0% | **h3-ha** | C | 2% | 2% | 2% | 2% | 2% | **3a** | C |
| **8 . P** | 2.) 22 | 2.0: - | 2.: - - | C | 2.: 9, | **3-9HF** | C | C | C | C | C | C | **c** | C |
| **Ligr Ts** | , | 4: 9 | 111 | 2 | - 2 | **9F4** | C | 2 | 2 | 2 | 2 | 2 | **3** | C |
| **a lLigr Ts** | 122% | 19.1% | 1: .) % | 2% | 1: .4% | **H4-ha** | C | 2% | 2% | 2% | 2% | 2% | **c** | C |
| **A%f utoTedl5 %u kslondlSingtedUniT5 %u ks** | 2 | 99 | 9 | 2 | l | **F0** | C | 2 | 2 | 2 | 2 | 2 | **3** | C |
| **a lA%f utoTedl5 %u kslondlSingtedUniT5 %u ks** | 2% | - .4% | , .) % | 2% | , .- % | **4-2a** | C | 2% | 2% | 2% | 2% | 2% | **c** | C |
| **Buses** | 2 | 11 | 2 | 2 | 2 | **77** | C | 2 | 2 | 2 | 2 | 2 | **3** | C |
| **a lBuses** | 2% | l .) % | 2% | 2% | 2% | **7-2a** | C | 2% | 2% | 2% | 2% | 2% | **c** | C |
| **Bi y tesl6nlR6od** | 2 | 2 | 2 | 2 | 2 | **3** | C | 2 | 2 | 2 | 2 | 2 | **3** | C |
| **a lBi y tesl6nlR6od** | 2% | 2% | 2% | 2% | 2% | **3a** | C | 2% | 2% | 2% | 2% | 2% | **c** | C |
| PanaircdkSi | C | C | C | C | C | C | 0 | C | C | C | C | C | C | 0 |
| % PanaircdkSi | C | C | C | C | C | C | 122% | C | C | C | C | C | C | 122% |
| yhToTuai RS LcRiiv ku( | C | C | C | C | C | C | 2 | C | C | C | C | C | C | 2 |
| % yhToTuai RS LcRiiv ku( | C | C | C | C | C | C | 2% | C | C | C | C | C | C | 2% |

*PanaircdkSi kSn yhToTuai RS LcRiiv ku( . g3gabr8w3wht er8ww3wht er RS can8W3Wecd8B3BCWdcS



## 21. Genesee & Oriskany - TMC

Thu Jul 19, 2018
AM Peak (7:3- AM ) 8:3- AMC
All s laLLeL(i gt hrL, Acrgdularen TcudkLaSn UgSt le)BSgr TcudkL, yuLeL, PeneLrcgaSL, ygdodleL RS wRan, ygdodleLRS s cRLLv alkC
All MRme I eSrL
D5 : - 38848, i RdargRS: 3. N10242. , )7- N2288- 4, Ugre s Rne: Brgda, Yev b Rck

PcRmgnen f o: Tcg)Urare TcaCgd
5 ara, DSdN
183 yakec wRan,
s RareLmgle, PA, 19. 20, BU

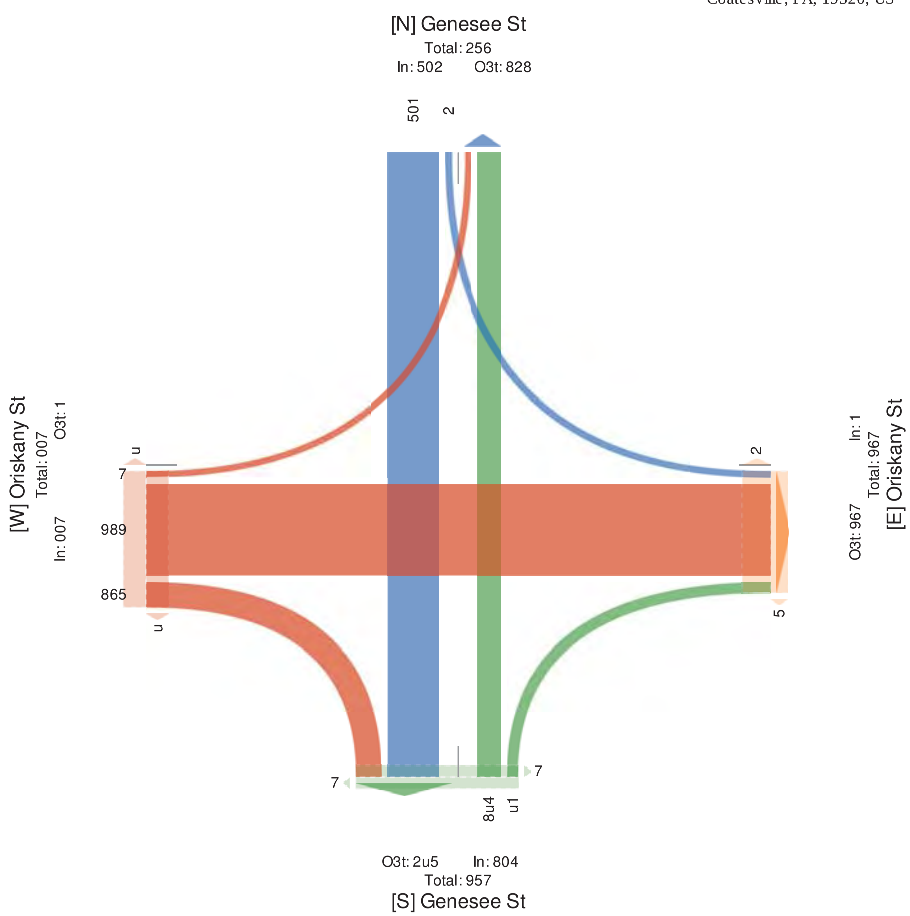
| i et<br>5 gcedrgRS | * eSeLee Ur<br>YRcrhf RuSn | | | | | | | * eSeLee Ur<br>URurhf RuSn | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tgl e | i | T | w | B | ww | **App** | Pen6 | i | T | w | B | ww | **App** | Pen6 | **Int** |
| 2018)07)19 7:3- AM | 0 | . 4 | 10 | 0 | 0 | **25** | 0 | 2 | 94 | 0 | 0 | 0 | **17** | 0 | **418** |
| 8:00AM | 0 | . 7 | 3 | 0 | . | **22** | 1 | 0 | 99 | 0 | 0 | 0 | **11** | 0 | **458** |
| 8:1- AM | 0 | . . | 4 | 0 | 3 | **24** | 1 | . | 9. | 0 | 0 | 0 | **15** | 0 | **408** |
| 8:. 0AM | 0 | 3. | 12 | 0 | 1 | **05** | 2 | 0 | 92 | 0 | 0 | 0 | **13** | 0 | **404** |
| **6 9tTo** | 0 | 139 | . 2 | 0 | 8 | **871** | 3 | - | . 80 | 0 | 0 | 0 | **470** | 0 | **8205** |
| **a lApp%9T r** | 0% | 78N8% | 14N9% | 0% | 3N2% | **c** | ) | 1N % | 98N7% | 0% | 0% | 0% | **c** | ) | ) |
| **a l6 9tTo** | 0% | 10N2% | 2N2% | 0% | 0N % | **84h a** | ) | 0N % | 24N1% | 0% | 0% | 0% | **35h2 a** | ) | ) |
| **. PH** | ) | 0N844 | 0N447 | ) | 0N00 | **- h722** | ) | 0N317 | 0N940 | ) | ) | ) | **- h1F3** | ) | 0N9. 1 |
| **Ligrts** | 0 | 1. 8 | 24 | 0 | 8 | **8F3** | ) | - | . 41 | 0 | 0 | 0 | **455** | ) | 1. 72 |
| **a lLigrts** | 0% | 92N4% | 81N % | 0% | 100% | **18h a** | ) | 100% | 9- N0% | 0% | 0% | 0% | **10h8a** | ) | 93N2% |
| **A%i uoTtedl6 %u kslTndlSingœdUnitl6 %u ks** | 0 | 8 | - | 0 | 0 | **84** | ) | 0 | 14 | 0 | 0 | 0 | **85** | ) | 44 |
| **a lA%i uoTtedl6 %u kslTndlSingœdUnitl6 %u ks** | 0% | - N3% | 1- N4% | 0% | 0% | **5h1a** | ) | 0% | 3N2% | 0% | 0% | 0% | **2h3a** | ) | 3N % |
| **Buses** | 0 | 2 | 0 | 0 | 0 | **3** | ) | 0 | . | 0 | 0 | 0 | **4** | ) | 14 |
| **a lBuses** | 0% | 1N % | 0% | 0% | 0% | **8h8a** | ) | 0% | 0N8% | 0% | 0% | 0% | **- h7a** | ) | 1N1% |
| **Bi y œsl9nlR9Td** | 0 | 1 | 1 | 0 | 0 | **3** | ) | 0 | 0 | 0 | 0 | 0 | **-** | ) | 2 |
| **a lBi y œsl9nlR9Td** | 0% | 0N7% | . N% | 0% | 0% | **8h8a** | ) | 0% | 0% | 0% | 0% | 0% | **- a** | ) | 0N1% |
| PeneLrcgaSL | ) | ) | ) | ) | ) | ) | 3 | ) | ) | ) | ) | ) | ) | 0 | |
| % PeneLrcgaSL | ) | ) | ) | ) | ) | ) | 100% | ) | ) | ) | ) | ) | ) | ) | ) |
| ygdodleL RS s cRLLv alk | ) | ) | ) | ) | ) | ) | 0 | ) | ) | ) | ) | ) | ) | 0 | |
| % ygdodleL RS s cRLLv alk | ) | ) | ) | ) | ) | ) | 0% | ) | ) | ) | ) | ) | ) | ) | ) |

6PeneLrcgaSL aSn ygdodleLRS s cRLLv alkN : i eGi, w: wgt hr, ww: wgt hr RS cen, T: Thcu, B: B)TucS

## 21. Genesee & Oriskany - TMC

Thu Jul 19, 2018
AM Peak (7:45AM - 8:45AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 548868, Location: 43.102623, -75.228856, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US






## 21. Genesee & Oriskany - TMC

Wed Jdul 18, 21 0
ForcPa kP(7 :4k5 AMk5 -
) uuCu(ssPs :Ligehs8) rhicdu(hPa Wrdc7s (t a Tit guPAn t ihWrdc7s8SdsPs8kPaPshri(t s8SicUcuPs ot Bo(a8SicUcuPs ot Crossy(u7-
) uu5 oRPw Pt hs
vmI M400D08Loc(hiot I493 2, D, 98A M3 , 00MD8TihP CoaPIn hic(86Py Nor7

kroRiaPa YUI WriATh(hP Wr(bbic
m(h(8vt c3
l 04 S(7Pr Bo(a8
Co(hPsRiuP8k) 8l 19, 28n T

| LPg mirPchiot | f ris7(t UTh O(shYodt a | | | | | | | f ris7(t UTh E PshYodt a | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WwP | L | W | B | n | BB | **App** | kPa* | L | W | B | n | BB | **App** | kPa* |
| , 210A2. A1 4I22k5 | 2 | , 9, | 99 | 2 | 1 | **240** | l | 2 | 2 | 2 | 2 | 2 | **3** | 2 |
| 4Il Mk5 | 2 | , 91 | , 2 | 2 | . | **277** | D | 2 | 2 | 2 | 2 | 2 | **3** | l |
| 4I92k5 | 2 | 920 | , 9 | 2 | D | **994** | 11 | 2 | 2 | 2 | 2 | 2 | **3** | l |
| 4I4Mk5 | l | , 9. | 1M | 2 | D | **215** | D | 2 | 2 | 2 | 2 | 2 | **3** | 9 |
| **6 ıαt a** | l | l21D | 11 | 2 | . 0 | **l197** | . 4 | 2 | 2 | 2 | 2 | 2 | **3** | M |
| **% ApprTt ch** | 23l % | 01 34% | 032% | 2% | , 3M% | - | A | 2% | 2% | 2% | 2% | 2% | - | A |
| **% 6 Tot a** | 23l % | M, 3 % | 43 % | 2% | 13M% | **18.5%** | A | 2% | 2% | 2% | 2% | 2% | **3%** | A |
| **PHF** | 23, M2 | 230, M | 23D01 | A | 23 . 0 | **3.809** | A | A | A | A | A | A | - | A |
| **Lighos** | l | 1D0 | 12 | 2 | , 0 | **l384** | A | 2 | 2 | 2 | 2 | 2 | **3** | A |
| **% Lighos** | 122% | 1M9% | 103l% | 2% | 122% | **51.4%** | A | 2% | 2% | 2% | 2% | 2% | - | A |
| **Arocuat œd 6 rucks t nd Singæ-Unio6 rucks** | 2 | 49 | l | 2 | 2 | **0 0** | A | 2 | 2 | 2 | 2 | 2 | **3** | A |
| **% Arocuat œd 6 rucks t nd Singæ-Unio6 rucks** | 2% | 43, % | 13l % | 2% | 2% | **9.5%** | A | 2% | 2% | 2% | 2% | 2% | - | A |
| **Buses** | 2 | M | 2 | 2 | 2 | **1** | A | 2 | 2 | 2 | 2 | 2 | **3** | A |
| **% Buses** | 2% | 23M% | 2% | 2% | 2% | **3.0%** | A | 2% | 2% | 2% | 2% | 2% | - | A |
| **Bicycæs Tn RTt d** | 2 | 2 | 2 | 2 | 2 | **3** | A | 2 | 2 | 2 | 2 | 2 | **3** | A |
| **% Bicycæs Tn RTt d** | 2% | 2% | 2% | 2% | 2% | **3%** | A | 2% | 2% | 2% | 2% | 2% | - | A |
| kPaPshri(t s | A | A | A | A | A | A | 11 | A | A | A | A | A | A | M |
| % kPaPshri(t s | A | A | A | A | A | A | . 13, % | A | A | A | A | A | A | l22% |
| SicUcuPs ot Crossy(u7 | A | A | A | A | A | A | M | A | A | A | A | A | A | 2 |
| % SicUcuPs ot Crossy(u7 | A | A | A | A | A | A | , 230% | A | A | A | A | A | A | 2% |

*kPaPshri(t s (t a SicUcuPs ot Crossy(u73LI LPh8BI Bigeh8BBI Bigehot rPa8WI Werd8n In AWdrt

**21. Genesee & Oriskany - TMC**
Thu Jul 19, 2018
Forced Peak (4PM - 5PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 548838, Location: 4. 710232. , -N57228853, Site Code: Utica, Yew b ork

Provided f y: Tri-State Tra℗c Data, Inc7
184 Baker Road,
Coatesville, PA, 19. 20, US

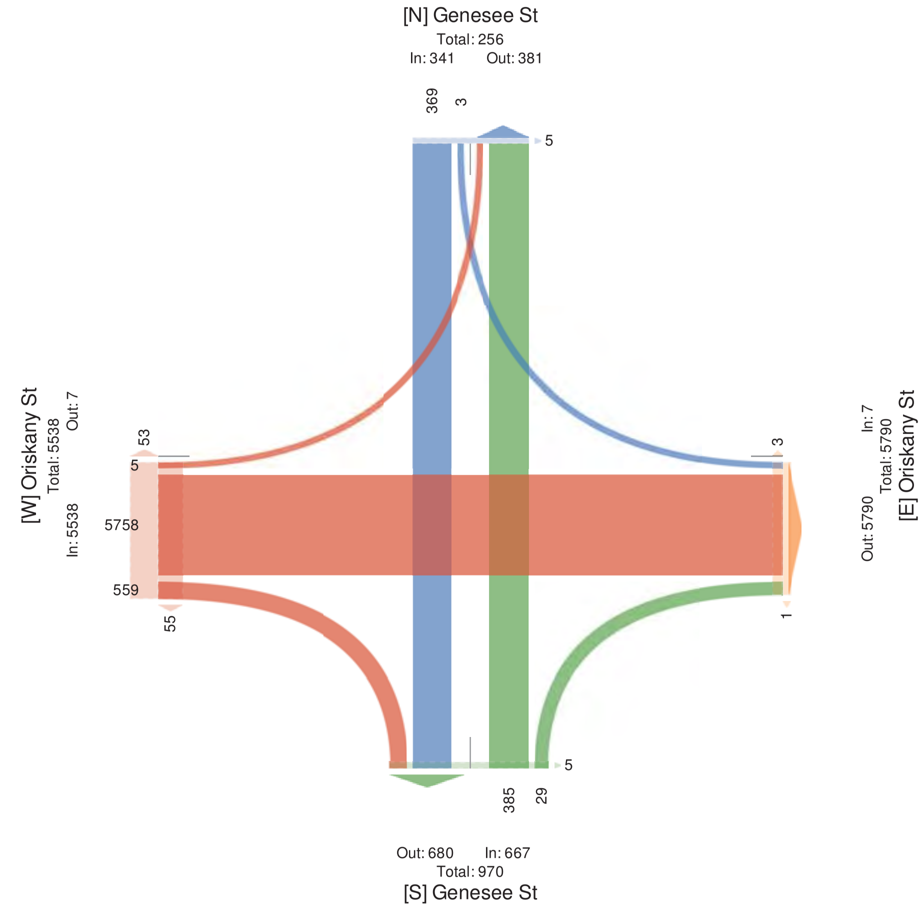
| Leg | * enesee St | | | | | | | * enesee St | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Yorthf ound | | | | | | | Southf ound | | | | | | | |
| Time | L | T | R | U | RR | App | Ped6 | L | T | R | U | RR | App | Ped6 | Int |
| 2018-0N-19 4:00PM | 0 | 8N | 15 | 0 | 0 | **251** | 0 | 1 | 93 | 0 | 0 | 0 | **74** | 0 | **840** |
| 4:15PM | 0 | 89 | 21 | 0 | 0 | **225** | 0 | 0 | 9. | 0 | 0 | 0 | **70** | 0 | **837** |
| 4:. 0PM | 0 | 95 | 22 | 0 | 1 | **226** | 0 | 0 | N9 | 0 | 0 | 0 | **47** | 0 | **908** |
| 4:45PM | 0 | 90 | 18 | 0 | 2 | **225** | 1 | 2 | 81 | 0 | 0 | 0 | **60** | 1 | **891** |
| **Total** | 0 | . 31 | N3 | 0 | . | **885** | 1 | . | . 49 | 0 | 0 | 0 | **091** | 1 | **2716** |
| **% Approach** | 0% | 8270% | 1N7. % | 0% | 07N% | - | - | 079% | 9971% | 0% | 0% | 0% | - | - | - |
| **% Total** | 0% | 187N% | . 79% | 0% | 072% | **11.6%** | - | 072% | 1871% | 0% | 0% | 0% | **26.0%** | - | - |
| **PHF** | - | 07950 | 07834 | - | 07. N5 | **5.701** | - | 07. N5 | 07909 | - | - | - | **5.754** | - | 0790. |
| **Lights** | 0 | . 53 | N5 | 0 | . | **808** | - | . | . 4. | 0 | 0 | 0 | **083** | - | 183N |
| **% Lights** | 0% | 9873% | 987N% | 0% | 100% | **76.3%** | - | 100% | 987. % | 0% | 0% | 0% | **76.0%** | - | 9378% |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 2 | 1 | 0 | 0 | **0** | - | 0 | . | 0 | 0 | 0 | **0** | - | 50 |
| **% Articulated Trucks and Single-Unit Trucks** | 0% | 073% | 17. % | 0% | 0% | **5.4%** | - | 0% | 079% | 0% | 0% | 0% | **5.7%** | - | 273% |
| **Buses** | 0 | 2 | 0 | 0 | 0 | **1** | - | 0 | . | 0 | 0 | 0 | **0** | - | 10 |
| **% Buses** | 0% | 073% | 0% | 0% | 0% | **5.9%** | - | 0% | 079% | 0% | 0% | 0% | **5.7%** | - | 075% |
| **Bicycles on Road** | 0 | 1 | 0 | 0 | 0 | **2** | - | 0 | 0 | 0 | 0 | 0 | **5** | - | 1 |
| **% Bicycles on Road** | 0% | 07. % | 0% | 0% | 0% | **5.1%** | - | 0% | 0% | 0% | 0% | 0% | **5%** | - | 071% |
| Pedestrians | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 1 | |
| % Pedestrians | - | - | - | - | - | - | 100% | - | - | - | - | - | - | 100% | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 0% | - | - | - | - | - | - | 0% | - |

6Pedestrians and Bicycles on Crosswalk7L: Le℗, R: Right, RR: Right on red, T: Thru, U: U-Turn



**21. Genesee & Oriskany - TMC**
Thu Jul 19, 2018
FLengt ( g7AM( 4 P6( 4 )
Cll a l7ssgs Mrc hds, Cednul7dgt TeunAs 7kt Srkc lgPUkrdTeunAs, Busgs, ( gt gsder7ks, Bmynlgs Lk o L7t , Bmynlgs Lk a eLssR7lA)
Cll 4 Lwgv gkds
ml D6- 88: 8, i Ln7dLkD- 53102: 25, P. 632886: , Srdg a Lt gDUdm7, NgR YLeA

( eLwt gt byDTerPSd7dg Te7ffm
I 7d7, mkn3
18- B7Age o L7t ,
a L7dgswllg, ( C, 19520, US






Revised A - 133

## 21. Genesee & Oriskany - TMC

Wed Jdul 18, 2l 0
PM Pak( 4-5l ) PM O)5l ) PMv Or HaokuuPak( ACdo
s uuLukiiai 4ght eci 8s odiTdukcan WodT(i kSn UhSt uaOBShc WodT(i 8y di ai 8Panai colkSi 8y hTRTuai CS wCkn8y hTRTuai CS LoCiiimku(v
s uuMCHaI aSci
D 5) - 00908gCTkdCS5- 3.l 2, 9, 38O7) ., , 00) 98Uhca L Cna 5BdhTk86 am NCo(

PoCHnan YR5WohOUckca WokbhT
: kdk8DST.
l 0- yk(aowCkn8
L Ckcai Hhua 8Ps 8l 13, 28BU

| gat<br>: hoa TdCS | r ohi (kSR Uc<br>f ki cYCdSn | | | | | | | r ohi (kSR Uc<br>E ai cYCdSn | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WhI a | g | W | w | B | ww | App | Pan* | g | W | w | B | ww | App | Pan* |
| , 2l0O2701 - 5l ) PM | 2 | , 31 | , 2 | 2 | 7 | **244** | 9 | 2 | 2 | 2 | 2 | 2 | **0** | l |
| - 532PM | 2 | 320 | , 3 | 2 | 9 | **337** | 1l | 2 | 2 | 2 | 2 | 2 | **0** | l |
| - 5- ) PM | l | , 37 | l) | 2 | 9 | **291** | 9 | 2 | 2 | 2 | 2 | 2 | **0** | 3 |
| ) 522PM | l | , 0- | l, | 2 | l) | **352** | 7 | 2 | 2 | 2 | 2 | 2 | **0** | 2 |
| **6 Tot a** | , | 1290 | 72 | 2 | 3- | **557l** | 32 | 2 | 2 | 2 | 2 | 2 | **0** | ) |
| **% ApprTt ch** | 2., % | 11.2% | 9.2% | 2% | , .1% | - | O | 2% | 2% | 2% | 2% | 2% | - | O |
| **% 6 Tot a** | 2.1% | ) 3.7% | 3.) % | 2% | 1.7% | **918O%** | O | 2% | 2% | 2% | 2% | 2% | **0%** | O |
| **. PH** | 2.) 22 | 2.097 | 2.791 | O | 2.) 97 | **08F75** | O | O | O | O | O | O | - | O |
| **Lighos** | , | 1239 | 91 | 2 | 3- | **55l 5** | O | 2 | 2 | 2 | 2 | 2 | **0** | O |
| **% Lighos** | 122% | 17.2% | 10.9% | 2% | 122% | **178 2%** | O | 2% | 2% | 2% | 2% | 2% | - | O |
| **Ardcuat œd 6 rucks t nd Singæ-Unio6 rucks** | 2 | , 1 | l | 2 | 2 | **30** | O | 2 | 2 | 2 | 2 | 2 | **0** | O |
| **% Ardcuat œd 6 rucks t nd Singæ-Unio6 rucks** | 2% | , .7% | 1.- % | 2% | 2% | **284%** | O | 2% | 2% | 2% | 2% | 2% | - | O |
| **Buses** | 2 | 3 | 2 | 2 | 2 | **3** | O | 2 | 2 | 2 | 2 | 2 | **0** | O |
| **% Buses** | 2% | 2.3% | 2% | 2% | 2% | **083%** | O | 2% | 2% | 2% | 2% | 2% | - | O |
| **Bicycæs Tn RTt d** | 2 | 2 | 2 | 2 | 2 | **0** | O | 2 | 2 | 2 | 2 | 2 | **0** | O |
| **% Bicycæs Tn RTt d** | 2% | 2% | 2% | 2% | 2% | **0%** | O | 2% | 2% | 2% | 2% | 2% | - | O |
| PanaicolkSi | O | O | O | O | O | O | , ) | O | O | O | O | O | O | ) |
| % PanaicolkSi | O | O | O | O | O | O | 03.3% | O | O | O | O | O | O | 122% |
| y hTRTuai CS LoCiimku( | O | O | O | O | O | O | ) | O | O | O | O | O | O | 2 |
| % y hTRTuai CS LoCiimku( | O | O | O | O | O | O | 19.7% | O | O | O | O | O | O | 2% |

*PanaicolkSi kSn y hTRTuai CS LoCiimku( . g5gabc8w5wht ec8ww5wht ecCS oan8W5We od8B5BOWdoS



## 21. Genesee & Oriskany - TMC

Thu Jul 19, 2018
PM Peak (4:15PM - 5:15PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 548838, Location: 4. 710232. , -N57228853, Site Code: Utica, Yew b ork

Provided f y: Tri-State TraGic
Data, Inc7
184 Baker Road,
Coatesville, PA, 19. 20, US

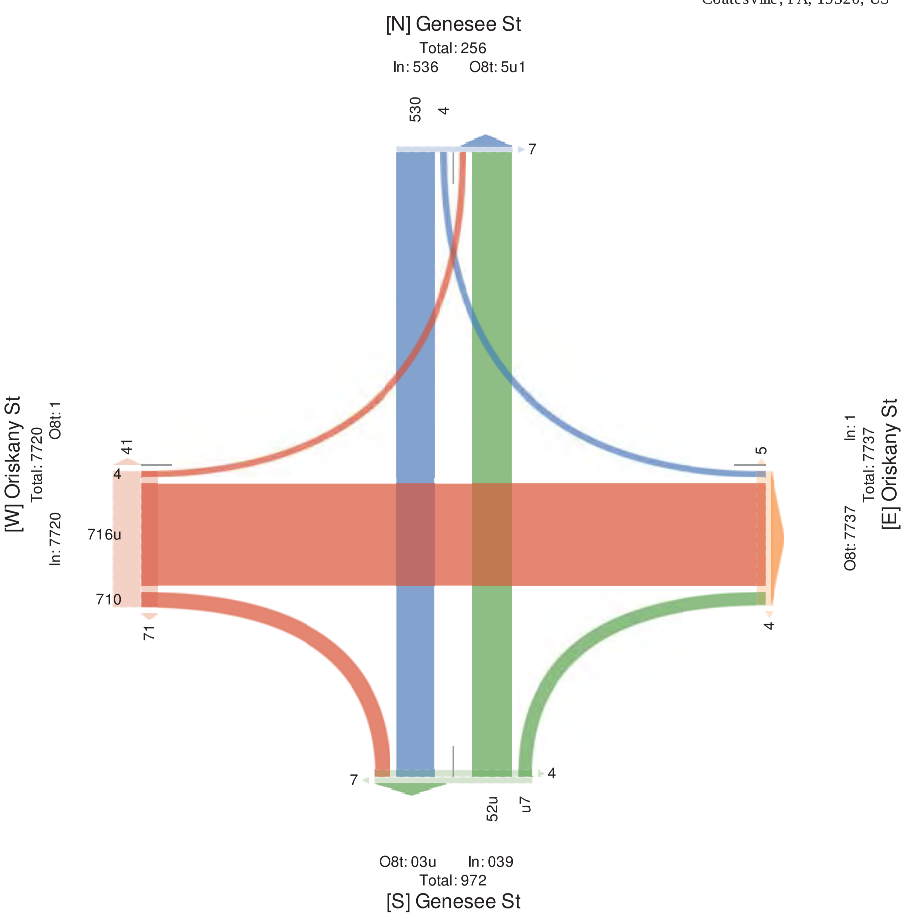
| Leg<br>Direction | * enesee St<br>Yorthf ound | | | | | | | * enesee St<br>Southf ound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | L | T | R | U | RR | App | Ped6 | L | T | R | U | RR | App | Ped6 | Int |
| 2018-0N-19 4:15PM | 0 | 89 | 21 | 0 | 0 | **225** | 0 | 0 | 9. | 0 | 0 | 0 | **17** | 0 | **481** |
| 4:. 0PM | 0 | 95 | 22 | 0 | 1 | **220** | 0 | 0 | N9 | 0 | 0 | 0 | **31** | 0 | **674** |
| 4:45PM | 0 | 90 | 18 | 0 | 2 | **225** | 1 | 2 | 81 | 0 | 0 | 0 | **07** | 1 | **469** |
| 5:00PM | 0 | 104 | 1N | 0 | 0 | **292** | 2 | 0 | 101 | 0 | 0 | 0 | **252** | 0 | **674** |
| **Total** | 0 | . N8 | N8 | 0 | . | **461** | . | 2 | . 54 | 0 | 0 | 0 | **768** | 1 | **2101** |
| **% Approach** | 0% | 8274% | 1N70% | 0% | 07N% | - | - | 073% | 9974% | 0% | 0% | 0% | - | - | - |
| **% Total** | 0% | 1970% | . 79% | 0% | 072% | **97.2%** | - | 071% | 1N78% | 0% | 0% | 0% | **23.1%** | - | - |
| **PHF** | - | 07909 | 07883 | - | 07. N5 | **5.140** | - | 07250 | 078N3 | - | - | - | **5.002** | - | 079. 1 |
| **Lights** | 0 | . N. | NN | 0 | . | **467** | - | 2 | . 50 | 0 | 0 | 0 | **769** | - | 1943 |
| **% Lights** | 0% | 987N% | 987N% | 0% | 100% | **10.3%** | - | 100% | 9879% | 0% | 0% | 0% | **10.1%** | - | 9N78% |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 2 | 1 | 0 | 0 | **7** | - | 0 | 1 | 0 | 0 | 0 | **2** | - | . 4 |
| **% Articulated Trucks and Single-Unit Trucks** | 0% | 075% | 17. % | 0% | 0% | **5.3%** | - | 0% | 07. % | 0% | 0% | 0% | **5.7%** | - | 17N% |
| **Buses** | 0 | . | 0 | 0 | 0 | **7** | - | 0 | . | 0 | 0 | 0 | **7** | - | 9 |
| **% Buses** | 0% | 078% | 0% | 0% | 0% | **5.3%** | - | 0% | 078% | 0% | 0% | 0% | **5.0%** | - | 075% |
| **Bicycles on Road** | 0 | 0 | 0 | 0 | 0 | **5** | - | 0 | 0 | 0 | 0 | 0 | **5** | - | 0 |
| **% Bicycles on Road** | 0% | 0% | 0% | 0% | 0% | **5%** | - | 0% | 0% | 0% | 0% | 0% | **5%** | - | 0% |
| Pedestrians | - | - | - | - | - | - | . | - | - | - | - | - | - | 1 | |
| % Pedestrians | - | - | - | - | - | - | 100% | - | - | - | - | - | - | 100% | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 0% | - | - | - | - | - | - | 0% | - |

6Pedestrians and Bicycles on Crosswalk7L: LeG, R: Right, RR: Right on red, T: Thru, U: U-Turn

## 21. Genesee & Oriskany - TMC

Thu Jul 19, 2018
PM Peak (4:15PM - 5:15PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 548868, Location: 43.102623, -75.228856, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US






## 22. Genesee and Lafayette/Bleeker - TMC

Wed Jdul 18, 21 0
FduLngt he (7AM-1AM894M-P4M6
Auu) uCaana (Lst eha8Aihsr duCmc Wdr Ta Cgc ksgt un-S gshWdr Ta8Udana84ncnahisCga8UsrBruna yg o yCc8UsrBruna yg ) iyaaRCuT6
AuMywnv ngha
mI D: 911 , 58LyrChsygD953 2, 2558-7: 3 , 10298kshn ) ycnDShsrC8. nR NyiT

4iywscnc YBDWis-khCm WiCbsr
I ChC8mgr3
1 09 UCThi o yCc8
) yCmawsun84A8l 15, 28Sk

| Lnt<br>I sinrhsyg | LChCBnlhn kl3<br>f CahYydgc | | | | | | | UunnTni kl3<br>E nahYydgc | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Wsv n | L | W | o | S | oo | **App** | 4nc* | L | W | o | S | oo | **App** | 4nc* |
| , 210-27-l1 7D22AM | 9 | 19 | l | 2 | 2 | **15** | 5 | , | 7 | 2 | 2 | l | **17** | 2 |
| 7D: AM | , | l, | , | 2 | 2 | **12** | P | l | 0 | 2 | 2 | l | **17** | P |
| 7D52AM | 5 | 0 | 9 | 2 | 2 | **10** | , | 9 | l: | , | 2 | 2 | **41** | 5 |
| 7D9: AM | 7 | , 2 | : | 2 | l | **33** | 2 | : | 15 | , | 2 | 2 | **47** | 5 |
| HydiuB WylCu | lP | : 9 | l, | 2 | l | **93** | ll | l, | 95 | 9 | 2 | , | **21** | l, |
| 0D22AM | 5 | 5, | P | 2 | l | **84** | l | 9 | 19 | 2 | 2 | l | **15** | l |
| 0D: AM | , | , , | 17 | 2 | 2 | **81** | l | 1 | , 9 | , | 2 | , | **36** | , |
| 0D52AM | 1 | , : | : | 2 | 2 | **35** | , | 12 | , 0 | , | 2 | 2 | **87** | , |
| 0D9: AM | : | 11 | 5 | 2 | l | **49** | , | 9 | 55 | 5 | 2 | l | **81** | 2 |
| HydiuB WylCu | 11 | 10 | 5l | 2 | , | **107** | P | , 7 | 11 | 7 | 2 | 9 | **136** | : |
| 1D22AM | 2 | 2 | 2 | 2 | 2 | **7** | 2 | 2 | 2 | 2 | 2 | 2 | **7** | 2 |
| HydiuB WylCu | 2 | 2 | 2 | 2 | 2 | **7** | 2 | 2 | 2 | 2 | 2 | 2 | **7** | 2 |
| 9D224M | 1 | , P | : | 2 | l | **81** | l | l, | P7 | P | 2 | 2 | **90** | P |
| 9D: 4M | l | , , | 7 | 2 | l | **31** | P | ll | 5: | : | 2 | 2 | **01** | 9 |
| 9D524M | 1 | 17 | 7 | 2 | l | **38** | l | 15 | : 2 | : | 2 | l | **25** | , |
| 9D9: 4M | P | 17 | 12 | 2 | l | **38** | l | : | 9, | : | 2 | l | **03** | l |
| HydiuB WylCu | , : | 0, | , 1 | 2 | 9 | **187** | 1 | 9l | 119 | , l | 2 | , | **409** | 15 |
| : D224M | 7 | , 5 | 9 | 2 | , | **32** | : | 1 | 9: | P | 2 | l | **21** | : |
| : D: 4M | P | 17 | P | 2 | l | **37** | , | 0 | 11 | , | 2 | l | **37** | 2 |
| : D524M | P | , 2 | 2 | 2 | 5 | **45** | 9 | 5 | 17 | 5 | 2 | l | **48** | 12 |
| : D9: 4M | 5 | l, | 5 | 2 | 5 | **41** | : | : | , 7 | 7 | 2 | , | **81** | : |
| HydiuB WylCu | , , | 7, | 15 | 2 | 1 | **112** | 1P | , : | 120 | 10 | 2 | : | **102** | , 2 |
| PD224M | 2 | 2 | 2 | 2 | 2 | **7** | 2 | 2 | 2 | 2 | 2 | 2 | **7** | 2 |
| HydiuB WylCu | 2 | 2 | 2 | 2 | 2 | **7** | 2 | 2 | 2 | 2 | 2 | 2 | **7** | 2 |
| **Total** | 0, | 52P | 0: | 2 | 1P | **895** | 9, | 12: | 999 | : 2 | 2 | 15 | **214** | : 2 |
| **% Approach** | 1P30% | P, 3P% | 1739% | 2% | 535% | **-** | - | 173, % | 7, 3 % | 03, % | 2% | , 31% | **-** | - |
| **% Total** | , 32% | 739% | , 31% | 2% | 239% | **11.9%** | - | , 3: % | 1237% | 13, % | 2% | 235% | **18.9%** | - |
| **Lights** | 70 | , 71 | 05 | 2 | 1P | **802** | - | 17 | 9, , | 92 | 2 | 11 | **067** | - |
| **% Lights** | 1: 31% | 113, % | 173P% | 2% | 122% | **53.3%** | - | 1, 39% | 1: 32% | 0232% | 2% | 093P% | **53.1%** | - |
| **Articulated Trucks and Single-Unit Trucks** | 9 | P | , | 2 | 2 | **14** | - | 2 | , | 2 | 2 | 2 | **4** | - |
| **% Articulated Trucks and Single-Unit Trucks** | 931% | , 32% | , 39% | 2% | 2% | **4.0%** | - | 2% | 23 % | 2% | 2% | 2% | **7.3%** | - |
| **Buses** | 2 | , 1 | 2 | 2 | 2 | **41** | - | 7 | 11 | 12 | 2 | , | **39** | - |
| **% Buses** | 2% | P31% | 2% | 2% | 2% | **8.3%** | - | P37% | 935% | , 232% | 2% | 1: 39% | **2.4%** | - |
| **Bicycles on Road** | 2 | 2 | 2 | 2 | 2 | **7** | - | 1 | 1 | 2 | 2 | 2 | **4** | - |
| **% Bicycles on Road** | 2% | 2% | 2% | 2% | 2% | **7%** | - | 132% | 23, % | 2% | 2% | 2% | **7.3%** | - |
| 4ncnahisCga | - | - | - | - | - | - | 5P | - | - | - | - | - | - | : 2 |
| % 4ncnahisCga | - | - | - | - | - | - | 0: 37% | - | - | - | - | - | - | 122% |
| UsrBruna yg ) iyaaRCuT | - | - | - | - | - | - | P | - | - | - | - | - | - | 2 |
| % UsrBruna yg ) iyaaRCuT | - | - | - | - | - | - | 1935% | - | - | - | - | - | - | 2% |

*4ncnahisCga Cgc UsrBruna yg ) iyaaRCuT3LDLnbl8o Do st el8o o Do st ehyg inc8WDWeid8S DS -Wdig



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**22. Genesee and Lafayette/Bleeker - TMC**
Thu Jul 19, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549123, Location: 43.102033, -75.229804, Site Code: Utica, New York

TRI-STATE TRAFFIC DATA
Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

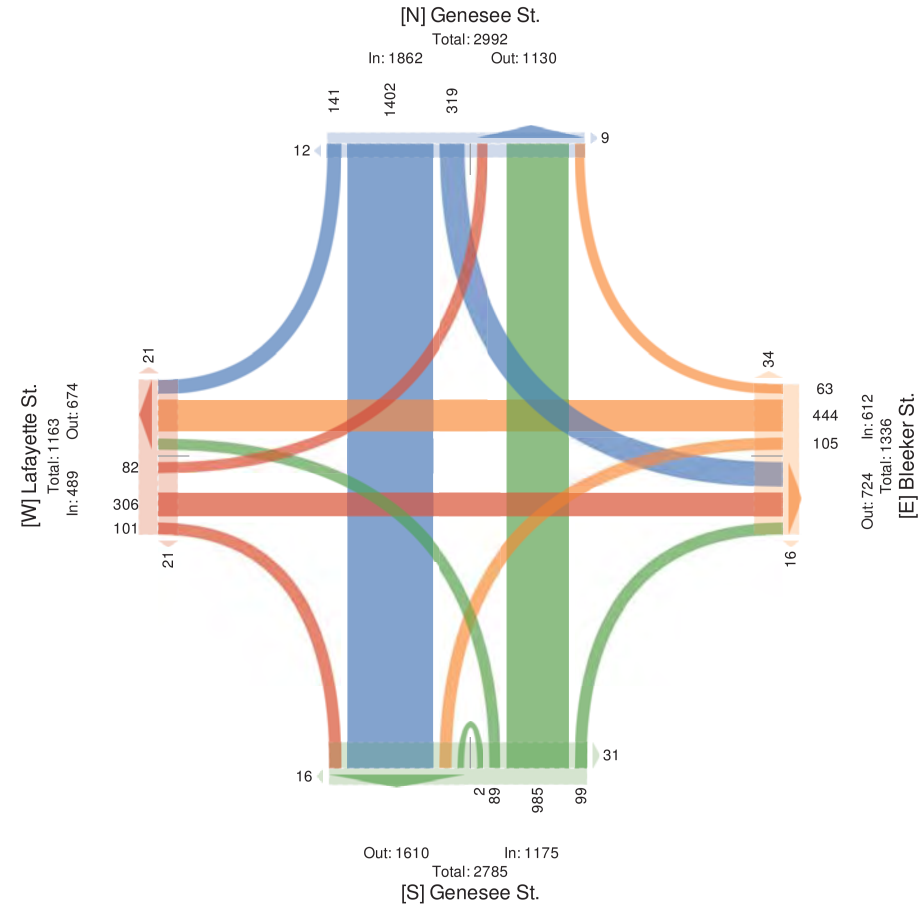
| Leg | Genesee St. | | | | | | | Genesee St. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Northbound | | | | | | | Southbound | | | | | | | |
| Time | L | T | R | U | RR | App | Ped* | L | T | R | U | RR | App | Ped* | Int |
| 2018-07-19 7:00AM | 3 | 29 | 2 | 0 | 0 | **16** | 0 | 16 | 54 | 6 | 0 | 0 | **28** | 0 | **514** |
| 7:15AM | 3 | 28 | 0 | 0 | 0 | **15** | 2 | 17 | 75 | 10 | 0 | 0 | **539** | 0 | **574** |
| 7:30AM | 2 | 31 | 1 | 0 | 0 | **16** | 2 | 16 | 85 | 6 | 0 | 0 | **532** | 3 | **522** |
| 7:45AM | 5 | 36 | 5 | 0 | 0 | **68** | 3 | 19 | 107 | 8 | 0 | 3 | **512** | 1 | **918** |
| Hourly Total | 13 | 124 | 8 | 0 | 0 | **567** | 7 | 68 | 321 | 30 | 0 | 3 | **699** | 4 | **255** |
| 8:00AM | 2 | 41 | 3 | 0 | 0 | **68** | 2 | 21 | 101 | 11 | 0 | 0 | **511** | 0 | **963** |
| 8:15AM | 5 | 37 | 5 | 0 | 0 | **62** | 2 | 17 | 118 | 6 | 0 | 1 | **569** | 1 | **982** |
| 8:30AM | 6 | 44 | 7 | 1 | 0 | **70** | 4 | 24 | 100 | 13 | 0 | 0 | **512** | 0 | **926** |
| 8:45AM | 4 | 45 | 7 | 0 | 0 | **78** | 0 | 20 | 108 | 9 | 0 | 2 | **514** | 2 | **986** |
| Hourly Total | 17 | 167 | 22 | 1 | 0 | **932** | 8 | 82 | 427 | 39 | 0 | 3 | **775** | 3 | **5367** |
| 9:00AM | 0 | 0 | 0 | 0 | 0 | **3** | 0 | 0 | 0 | 0 | 0 | 0 | **3** | 0 | **3** |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | **3** | 0 | 0 | 0 | 0 | 0 | 0 | **3** | 0 | **3** |
| 4:00PM | 12 | 89 | 16 | 0 | 0 | **552** | 3 | 25 | 101 | 14 | 0 | 0 | **563** | 3 | **101** |
| 4:15PM | 7 | 99 | 8 | 0 | 1 | **557** | 3 | 28 | 89 | 14 | 0 | 0 | **515** | 1 | **190** |
| 4:30PM | 10 | 103 | 8 | 0 | 0 | **595** | 5 | 27 | 76 | 5 | 0 | 1 | **534** | 0 | **111** |
| 4:45PM | 6 | 103 | 5 | 0 | 0 | **556** | 13 | 21 | 80 | 3 | 0 | 2 | **538** | 4 | **132** |
| Hourly Total | 35 | 394 | 37 | 0 | 1 | **682** | 24 | 101 | 346 | 36 | 0 | 3 | **608** | 8 | **5175** |
| 5:00PM | 8 | 104 | 12 | 0 | 0 | **596** | 1 | 17 | 98 | 11 | 0 | 0 | **598** | 3 | **162** |
| 5:15PM | 3 | 78 | 11 | 1 | 0 | **41** | 3 | 18 | 70 | 5 | 0 | 0 | **41** | 0 | **968** |
| 5:30PM | 8 | 58 | 4 | 0 | 0 | **23** | 4 | 16 | 64 | 4 | 0 | 2 | **08** | 2 | **934** |
| 5:45PM | 5 | 60 | 4 | 0 | 0 | **84** | 0 | 17 | 76 | 4 | 0 | 1 | **40** | 1 | **994** |
| Hourly Total | 24 | 300 | 31 | 1 | 0 | **178** | 8 | 68 | 308 | 24 | 0 | 3 | **631** | 6 | **5315** |
| 6:00PM | 0 | 0 | 0 | 0 | 0 | **3** | 0 | 0 | 0 | 0 | 0 | 0 | **3** | 0 | **3** |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | **3** | 0 | 0 | 0 | 0 | 0 | 0 | **3** | 0 | **3** |
| **Total** | 89 | 985 | 98 | 2 | 1 | **5527** | 47 | 319 | 1402 | 129 | 0 | 12 | **5089** | 21 | **6510** |
| **% Approach** | 7.6% | 83.8% | 8.3% | 0.2% | 0.1% | - | - | 17.1% | 75.3% | 6.9% | 0% | 0.6% | - | - | - |
| **% Total** | 2.2% | 23.8% | 2.4% | 0% | 0% | **90.6%** | - | 7.7% | 33.9% | 3.1% | 0% | 0.3% | **67.3%** | - | - |
| **Lights** | 88 | 963 | 97 | 2 | 1 | **5575** | - | 310 | 1370 | 125 | 0 | 12 | **5052** | - | 3994 |
| **% Lights** | 98.9% | 97.8% | 99.0% | 100% | 100% | **40.3%** | - | 97.2% | 97.7% | 96.9% | 0% | 100% | **42.8%** | - | 96.5% |
| **Articulated Trucks and Single-Unit Trucks** | 1 | 17 | 1 | 0 | 0 | **54** | - | 7 | 26 | 3 | 0 | 0 | **18** | - | 69 |
| **% Articulated Trucks and Single-Unit Trucks** | 1.1% | 1.7% | 1.0% | 0% | 0% | **5.8%** | - | 2.2% | 1.9% | 2.3% | 0% | 0% | **5.4%** | - | 1.7% |
| **Buses** | 0 | 3 | 0 | 0 | 0 | **1** | - | 2 | 6 | 1 | 0 | 0 | **4** | - | 71 |
| **% Buses** | 0% | 0.3% | 0% | 0% | 0% | **3.1%** | - | 0.6% | 0.4% | 0.8% | 0% | 0% | **3.7%** | - | 1.7% |
| **Bicycles on Road** | 0 | 2 | 0 | 0 | 0 | **9** | - | 0 | 0 | 0 | 0 | 0 | **3** | - | 4 |
| **% Bicycles on Road** | 0% | 0.2% | 0% | 0% | 0% | **3.9%** | - | 0% | 0% | 0% | 0% | 0% | **3%** | - | 0.1% |
| Pedestrians | - | - | - | - | - | - | 46 | - | - | - | - | - | - | 14 | |
| % Pedestrians | - | - | - | - | - | - | 97.9% | - | - | - | - | - | - | 66.7% | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 7 | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 2.1% | - | - | - | - | - | - | 33.3% | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn



**22. Genesee and Lafayette/Bleeker - TMC**
Thu Jul 19, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549123, Location: 43.102033, -75.229804, Site Code: Utica, New York

TRI-STATE TRAFFIC DATA
Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US



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## 22. Genesee and Lafayette/Bleeker - TMC

Wed Jdul 18, 2l 0
ForcPa kP(7 :45AM4 ) C05AM4 ) s
- uuLu(iiPi :ght eTi8- rTicdu(TPa Wrdc7i (na Shnt uPCUnhTWrdc7i 8Bdi Pi 8kPaPi Th(ni 8BhcycuPi on Ro(a8BhcycuPi on Lroiiw(u7s
- uu) ovPmPnTi
ID5MA1l , 68goc(Tion5A63 2, 2668C4M3, , 102A8ShTP LoaP5UTc(8. Pw 9 or7

krovhaPa Ny5WrhCST(TP Wr(YYc
D(T(8Inc3
l 0AB(7Pr Ro(a8
Lo(TPi vhuP8k- 8l 16, 28US

| gPt<br>DhrPcTion<br>WmP | g(Y(yPTP ST3<br>b(i TNodna<br>g | W | R | U | RR | App | kPaE | BuPP7Pr ST3<br>f PiTNodna<br>g | W | R | U | RR | App | kPaE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ,210C24C1 45AM4 ) | 4 | ,2 | M | 2 | l | 22 | 2 | M | l6 | , | 2 | 2 | 40 | 6 |
| 0522-) | 6 | 6, | * | 2 | l | 34 | l | A | lA | 2 | 2 | l | 79 | l |
| 05M4 ) | , | ,, | l4 | 2 | 2 | 37 | l | 1 | ,A | , | 2 | , | 21 | , |
| 0562-) | 1 | ,M | M | 2 | 2 | 29 | , | l2 | ,0 | , | 2 | 2 | 30 | , |
| **56Tbt** | .l | 11 | 66 | 2 | . | **7aa** | A | .0 | 41 | * | 2 | 6 | **77l** | 0 |
| **% Appr6och** | l63M% | *631% | ,136% | 2% | 136% | - | C | ,A31% | *031% | M3,% | 2% | ,3*% | - | C |
| **% 56Tbt** | ,31% | 134% | 63,% | 2% | 23,% | **7a84%** | C | ,30% | 430% | 23*% | 2% | 236% | **7783%** | C |
| **.PH** | 23M06 | 23446 | 23A0M | C | 23M22 | **08942** | C | 23422 | 2342M | 234M2 | C | 2364M | **0814a** | C |
| **FLi hTg** | l4 | 1l | 6l | 2 | , | **737** | C | ,* | 4A | 6 | 2 | , | **70a** | C |
| **% FLi hTg** | 0132% | 1131% | 1631% | 2% | l22% | **9780%** | C | 1,31% | 1634% | M232% | 2% | **34% | **908a%** | C |
| **ArTics toTue 5 rscdg oke nlki tu-SkITi5 rscdg** | A | , | , | 2 | 2 | **U** | C | 2 | l | 2 | 2 | 2 | **7** | C |
| **% ArTics toTue 5 rscdg oke nlki tu-SkITi5 rscdg** | 1132% | ,32% | *31% | 2% | 2% | **a84%** | C | 2% | 136% | 2% | 2% | 2% | **089%** | C |
| **Bsgug** | 2 | * | 2 | 2 | 2 | **l** | C | , | A | 6 | 2 | l | **70** | C |
| **% Bsgug** | 2% | *31% | 2% | 2% | 2% | **289%** | C | 431% | M31% | M232% | 2% | 6636% | **U81%** | C |
| **BIcyctug 6k R6oe** | 2 | 2 | 2 | 2 | 2 | **0** | C | 2 | 2 | 2 | 2 | 2 | **0** | C |
| **% BIcyctug 6k R6oe** | 2% | 2% | 2% | 2% | 2% | **0%** | C | 2% | 2% | 2% | 2% | 2% | **0%** | C |
| kPaPi Th(ni | C | C | C | C | C | C | 6 | C | C | C | C | C | C | 0 |
| % kPaPi Th(ni | C | C | C | C | C | C | 4M82% | C | C | C | C | C | C | l22% |
| BhcycuPi on Lroiiw(u7 | C | C | C | C | C | C | l | C | C | C | C | C | C | 2 |
| % BhcycuPi on Lroiiw(u7 | C | C | C | C | C | C | ,M82% | C | C | C | C | C | C | 2% |

[E]kPaPi Th(ni (na BhcycuPi on Lroiiw(u73g5gPY8R5Rht eT8RR5Rht eTon rPa8W5Werd8U5UCWdrn

## 22. Genesee and Lafayette/Bleeker - TMC

Thu Jul 19, 2018
Forced Peak (4M5) A C8M5) As
) ll Llaiiei (gtnhSi , ) rSiculaSed Trucki aUd BtUnleCy UtSTrucki , Ruiei , Pedei SrtaUi , Rtcwclei oUvoad, Rtcwclei oULroiimalks
) ll AoIeDeUSi
:3 M5- 912. , gocaStoUM4 . 71020. . , C4572 2980- , BtSe LodeMy Stca, Nem York

ProI tded bwMTrtCBSaSe Trafftc
3 aSa, :Uc7
18- Raker voad,
LoaSei Itlle, P) , 19. 20, y B

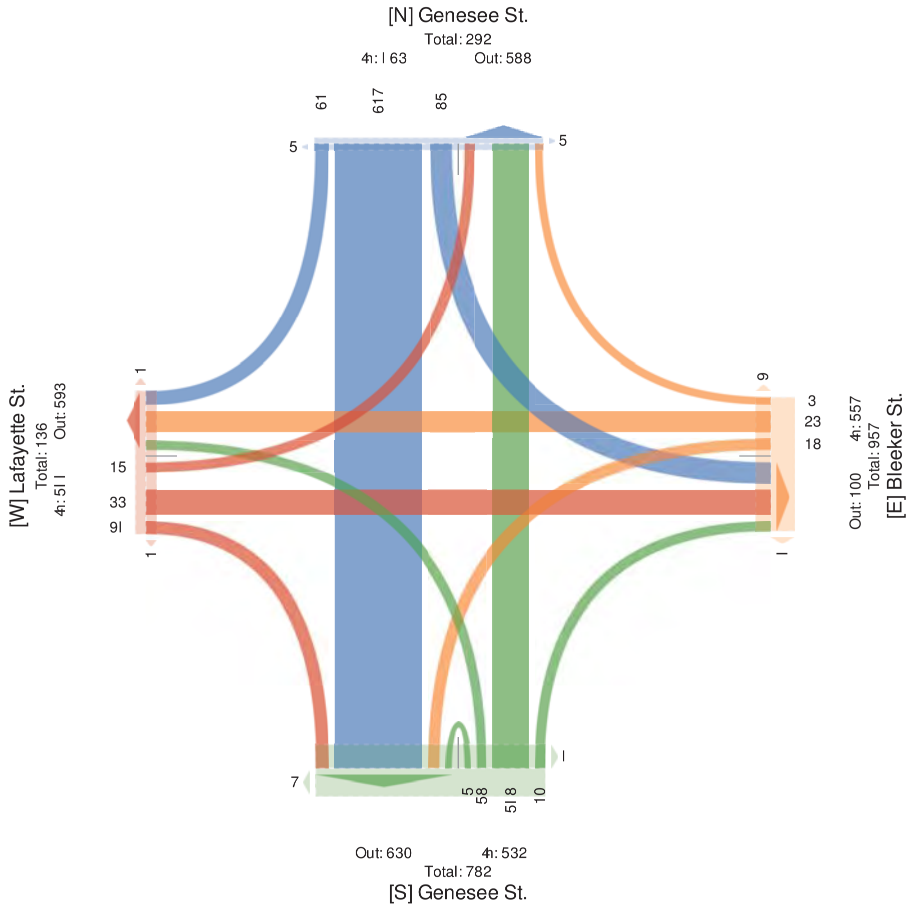
| gen<br>3 trecStoU<br>TtDe | GeUeiee BS7<br>NorShbouUd<br>g | T | v | y | vv | App | Ped* | GeUeiee BS7<br>BouShbouUd<br>g | T | v | y | vv | App | Ped* | Int |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2018C04C19 4M5) A | 5 | .6 | 5 | 0 | 0 | **25** | . | 19 | 104 | 8 | 0 | . | **174** | 1 | **875** |
| 8M0) A | 2 | -1 | . | 0 | 0 | **25** | 2 | 21 | 101 | 11 | 0 | 0 | **177** | 0 | **820** |
| 8M5) A | 5 | .4 | 5 | 0 | 0 | **24** | 2 | 14 | 118 | 6 | 0 | 1 | **128** | 1 | **854** |
| 8M0) A | 6 | -- | 4 | 1 | 0 | **36** | - | 2- | 100 | 1. | 0 | 0 | **174** | 0 | **842** |
| **9 Ttoa** | 18 | 158 | 20 | 1 | 0 | **1l4** | 11 | 81 | -26 | .8 | 0 | - | **321** | 2 | **1014** |
| **% Approach** | 9.1% | 8072% | 1072% | 075% | 0% | - | C | 1-78% | 4476% | 679% | 0% | 074% | - | C | C |
| **% 9 Ttoa** | 178% | 1575% | 270% | 071% | 0% | **1l.2%** | C | 870% | -179% | .74% | 0% | 07-% | **32.0%** | C | C |
| **PHF** | 07450 | 07898 | 0741- | 07250 | C | **0.621** | C | 078-- | 0790. | 074.1 | C | 07.. | **0.154** | C | 07928 |
| **Lights** | 18 | 152 | 19 | 1 | 0 | **1l0** | C | 46 | -1. | .5 | 0 | - | **386** | C | 96- |
| **% Lights** | 100% | 9672% | 9570% | 100% | 0% | **15.2%** | C | 9.78% | 9679% | 9271% | 0% | 100% | **15.8%** | C | 9-78% |
| **Articuated 9 rucks ond Singae-Unit 9 rucks** | 0 | 5 | 1 | 0 | 0 | **5** | C | - | 12 | . | 0 | 0 | **1l** | C | .- |
| **% Articuated 9 rucks ond Singae-Unit 9 rucks** | 0% | .72% | 570% | 0% | 0% | **7.0%** | C | -79% | 278% | 479% | 0% | 0% | **7.3%** | C | .7.% |
| **Buses** | 0 | 0 | 0 | 0 | 0 | **0** | C | 1 | 1 | 0 | 0 | 0 | **8** | C | 18 |
| **% Buses** | 0% | 0% | 0% | 0% | 0% | **0%** | C | 172% | 072% | 0% | 0% | 0% | **0.2%** | C | 178% |
| **Bicycaes Tn RTod** | 0 | 1 | 0 | 0 | 0 | **1** | C | 0 | 0 | 0 | 0 | 0 | **0** | C | 1 |
| **% Bicycaes Tn RTod** | 0% | 076% | 0% | 0% | 0% | **0.3%** | C | 0% | 0% | 0% | 0% | 0% | **0%** | C | 071% |
| PedeiSrtaUi | C | C | C | C | C | C | 11 | C | C | C | C | C | C | 1 | |
| % PedeiSrtaUi | C | C | C | C | C | C | 100% | C | C | C | C | C | C | 5070% | C |
| Rtcwclei oULroiimalk | C | C | C | C | C | C | 0 | C | C | C | C | C | C | 1 | |
| % Rtcwclei oULroiimalk | C | C | C | C | C | C | 0% | C | C | C | C | C | C | 5070% | C |

*PedeiSrtaUi aUd Rtcwclei oULroiimalk7gMefS, v MrtnhS, v v MrtnhSoUred, TMThru, y My CTurU

## 22. Genesee and Lafayette/Bleeker - TMC

Thu Jul 19, 2018
Forced Peak (7:45AM - 8:45AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549123, Location: 43.102033, -75.229804, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US






## 22. Genesee and Lafayette/Bleeker - TMC

Wed Jdul 18, 21 0
AM Pak( -0AM 91AM)
AuCukssas -Ligehs8Athirdukhac Wdr(s kTc niTgua9S TihWdr(s8Udsas8PacashtikTs8UirBruas yT oykc8UirBruas yT CtyssRku()
AuMywav aThs
ml D: 51l , 48LyrkhiyTD546 2, 24489B: 6, , 10258nilha CycaDShirk8. aR 7 yt(

Ptywicac NBDWti9nlkha WtkYYr
I khk8mTr6
l 05 Uk(at oykc8
Cykhaswiua8PA8l 14, 28Sn

| Lag<br>I itarhiyT | LkYkBalha nl6<br>bkshNydTc | | | | | | | Uuaa(at nl6<br>f ashNydTc | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Wiv a | L | W | o | S | oo | App | PacE | L | W | o | S | oo | App | PacE |
| , 2l09239l 1 0D22AM | 4 | 4, | * | 2 | l | **25** | l | 5 | 15 | 2 | 2 | l | **04** | l |
| 0D: AM | , | , , | l3 | 2 | 2 | **20** | l | 1 | , 5 | , | 2 | , | **9T** | , |
| 0D42AM | 1 | , : | : | 2 | 2 | **94** | , | 12 | , 0 | , | 2 | 2 | **2o** | , |
| 0D5: AM | : | 11 | 4 | 2 | l | **5t** | , | 5 | 44 | 4 | 2 | l | **20** | 2 |
| **al 1%** | 11 | 10 | 4l | 2 | , | **0ro** | * | , 3 | 11 | 3 | 2 | 5 | **09T** | : |
| **c hApp-l %7.** | l, 63% | *: 64% | , 263% | 2% | l64% | **P** | 9 | l163% | 3, 64% | : 61% | 2% | , 61% | **P** | 9 |
| **c hal 1%** | 160% | 165% | 462% | 2% | 26, % | **02H2c** | 9 | , 6*% | 16 % | 263% | 2% | 265% | **09H0c** | 9 |
| **FLi** | 26 , 0 | 263** | 265: * | 9 | 26 22 | **oH49** | 9 | 26*3: | 263: 2 | 26 04 | 9 | 26 22 | **oH9r** | 9 |
| **gs8. lu** | l* | 1l | , 1 | 2 | , | **09t** | 9 | , : | 15 | 4 | 2 | 4 | **05r** | 9 |
| **c hgs8. lu** | 056, % | 1, 61% | 146 % | 2% | l22% | **45H4c** | 9 | 1, 6*% | 1561% | 5, 61% | 2% | 3: 62% | **40H5c** | 9 |
| **A-1s7e %1dkha -e7nuh%SkhUsS8 dB3Ss1ha -e7nu** | 4 | , | , | 2 | 2 | **T** | 9 | 2 | 2 | 2 | 2 | 2 | **o** | 9 |
| **c hA-1s7e %1dkha -e7nuh%SkhUsS8 dB3Ss1ha -e7nu** | l: 60% | , 62% | *6 % | 2% | 2% | **2HTc** | 9 | 2% | 2% | 2% | 2% | 2% | **oc** | 9 |
| **Beudu** | 2 | : | 2 | 2 | 2 | **r** | 9 | , | : | 5 | 2 | l | **05** | 9 |
| **c hBeudu** | 2% | : 61% | 2% | 2% | 2% | **9H9c** | 9 | 365% | : 61% | : 361% | 2% | , : 62% | **tH1c** | 9 |
| **Bs7y7 duhl ShRl %k** | 2 | 2 | 2 | 2 | 2 | **o** | 9 | 2 | 2 | 2 | 2 | 2 | **o** | 9 |
| **c hBs7y7 duhl ShRl %k** | 2% | 2% | 2% | 2% | 2% | **oc** | 9 | 2% | 2% | 2% | 2% | 2% | **oc** | 9 |
| PacashtikTs | 9 | 9 | 9 | 9 | 9 | 9 | : | 9 | 9 | 9 | 9 | 9 | 9 | : |
| % PacashtikTs | 9 | 9 | 9 | 9 | 9 | 9 | 0464% | 9 | 9 | 9 | 9 | 9 | 9 | l22% |
| UirBruas yT CtyssRku( | 9 | 9 | 9 | 9 | 9 | 9 | l | 9 | 9 | 9 | 9 | 9 | 9 | 2 |
| % UirBruas yT CtyssRku( | 9 | 9 | 9 | 9 | 9 | 9 | l*63% | 9 | 9 | 9 | 9 | 9 | 9 | 2% |

EPacashtikTs kTc UirBruas yT CtyssRku( 6LDLaY8o Doigeh8o o Doigehy Ttac8WDWetd8S DS 9WdtT



Revised A - 138

## 22. Genesee and Lafayette/Bleeker - TMC

Thu Jul 19, 2018
AM Peak (8AM 79AM:
All 3la--e- () ChL, AiLgulalet Tiugk- art cCs le7dr CLTiugk-, nu-e-, Pet e-LiGr -, nGSgle-Ur BUat , nGSgle- Ur 3iU--y alk:
All MUoeR er L
w mI D9125, ) UgaICUr mD5402055, 7. I 422980D, c Cle 3 Ut emd LGa, Ney YUik

PiUoCet bSmTiCc laLe TiaffG
v aLa, w g4
18Dnakei BUat ,
3 UaLe-oCle, PA, 19520, d c

| ) es<br>v CegICUr | Gere-ee cL4<br>NUiLhbUurt | | | | | | | Gere-ee cL4<br>cUuLhbUurt | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCR e | ) | T | B | d | BB | **App** | Pet * | ) | T | B | d | BB | **App** | Pet * | **Int** |
| 20187 0. 719 8m0 0AM | 2 | D1 | 5 | 0 | 0 | **25** | 2 | 21 | 101 | 11 | 0 | 0 | **177** | 0 | **428** |
| 8m1I AM | I | 5. | I | 0 | 0 | **20** | 2 | 1. | 118 | 6 | 0 | 1 | **124** | 1 | **450** |
| 8m50AM | 6 | DD | . | 1 | 0 | **36** | D | 2D | 100 | 15 | 0 | 0 | **170** | 0 | **402** |
| 8mDI AM | D | DI | . | 0 | 0 | **35** | 0 | 20 | 108 | 9 | 0 | 2 | **179** | 2 | **452** |
| **Total** | 1. | 16. | 22 | 1 | 0 | **480** | 8 | 82 | D2. | 59 | 0 | 5 | **331** | 5 | **1823** |
| **% Approach** | 842% | 804 % | 1046% | 041 % | 0% | - | 7 | 1D49% | . . 41 % | . 41% | 0% | 041 % | - | 7 | 7 |
| **% Total** | 146% | 1640% | 241% | 041% | 0% | **19.6%** | 7 | . 48% | D049% | 54 % | 0% | 045% | **34.0%** | 7 | 7 |
| **PHF** | 04 08 | 04928 | 04 86 | 042I 0 | 7 | **8.694** | 7 | 048I D | 0490I | 04 I 0 | 7 | 045. I | **8.908** | 7 | 049I 5 |
| **Lights** | 1. | 165 | 21 | 1 | 0 | **484** | 7 | . 8 | D1I | 5. | 0 | 5 | **377** | 7 | 998 |
| **% Lights** | 100% | 9. 46% | 9I 41 % | 100% | 0% | **90.5%** | 7 | 9I 41% | 9. 42% | 9D49% | 0% | 100% | **95.0%** | 7 | 9I 41 % |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 2 | 1 | 0 | 0 | **7** | 7 | 5 | 11 | 2 | 0 | 0 | **15** | 7 | 26 |
| **% Articulated Trucks and Single-Unit Trucks** | 0% | 142% | D41 % | 0% | 0% | **1.2%** | 7 | 54 % | 246% | I 41% | 0% | 0% | **4.9%** | 7 | 241 % |
| **Buses** | 0 | 1 | 0 | 0 | 0 | **1** | 7 | 1 | 1 | 0 | 0 | 0 | **4** | 7 | 20 |
| **% Buses** | 0% | 046% | 0% | 0% | 0% | **8.3%** | 7 | 142% | 042% | 0% | 0% | 0% | **8.2%** | 7 | 149% |
| **Bicycles on Road** | 0 | 1 | 0 | 0 | 0 | **1** | 7 | 0 | 0 | 0 | 0 | 0 | **8** | 7 | 1 |
| **% Bicycles on Road** | 0% | 046% | 0% | 0% | 0% | **8.3%** | 7 | 0% | 0% | 0% | 0% | 0% | **8%** | 7 | 041% |
| Pet e-LiGr - | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 7 | 7 | 7 | 7 | 7 | 7 | 2 | |
| % Pet e-LiGr - | 7 | 7 | 7 | 7 | 7 | 7 | 100% | 7 | 7 | 7 | 7 | 7 | 7 | 664 % | 7 |
| nGSgle- Ur 3iU--y alk | 7 | 7 | 7 | 7 | 7 | 7 | 0 | 7 | 7 | 7 | 7 | 7 | 7 | 1 | |
| % nGSgle- Ur 3iU--y alk | 7 | 7 | 7 | 7 | 7 | 7 | 0% | 7 | 7 | 7 | 7 | 7 | 7 | 5545% | 7 |

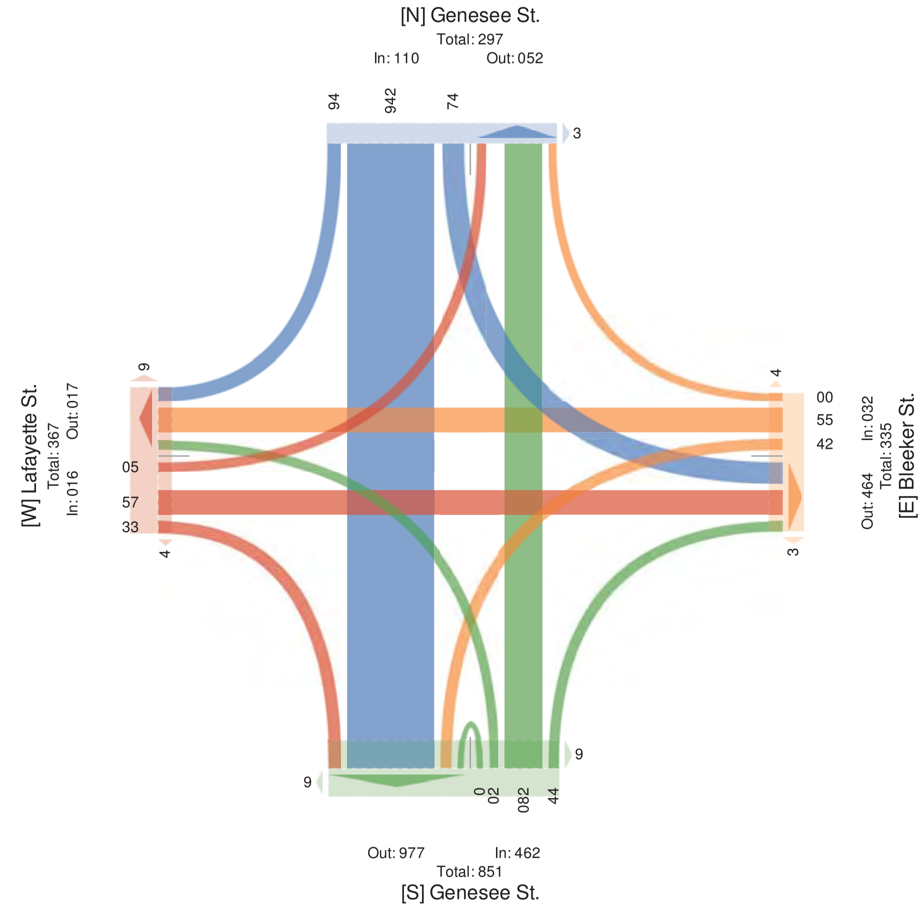
*Pet e-LiGr - art nGSgle- Ur 3iU--y alk4) m) efL, BmBGhL, BBmBGhLUr iet , TmThiu, dmd 7Tuir



## 22. Genesee and Lafayette/Bleeker - TMC

Thu Jul 19, 2018
AM Peak (8AM 79AM:
All 3la--e- () ChL, AiLgulalet Tiugk- art cCs le7dr CLTiugk-, nu-e-, Pet e-LiGr -, nGSgle-Ur BUat , nGSgle- Ur 3iU--y alk:
All MUoeR er L
w mI D9125, ) UgaICUr mD5402055, 7. I 422980D, c Cle 3 Ut emd LGa, Ney YUik

PiUoCet bSmTiCc laLe TiaffG
v aLa, w g4
18Dnakei BUat ,
3 UaLe-oCle, PA, 19520, d c



## 22. Genesee and Lafayette/Bleeker - TMC

Wed Jdul 18, 21 0
PM Pak( 4-PM 5) PMO5v r aHkuPak( o AdH
Cuus ukLLaL4i ghetL8CHgcduktaT WHdc(LknT Sgnhua5Ung WHdc(L8BdLaL8PaTaLtHgknL8BgcycuaL
An RAkT8BgcycuaL An s HALLwku(O
CuMAr amantL
ID: ) - 11 , 98i AcktgAn: - 93 2, 29985 ) 3, 102- 8Sga s ATa: Utgck87 aw 6 AH(

PHAr gTaT Ny: WHg5tkta WHkYgc
Dktk8Inc3
1 0- Bk(aHRAkT8
s AktaLr gua8PC8l 19, 28US

| i ah<br>DgHactgAn | i kYkyatta St3<br>bkLtNAdnT | | | | | | | Bua(aHSt3<br>f aLtNAdnT | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Wgma | i | W | R | U | RR | App | PaTE | i | W | R | U | RR | App | PaTE |
| , 21052. 511 - :22PM | 1 | , * | ) | 2 | 1 | **24** | 1 | 1, | *. | * | 2 | 2 | **03** | * |
| - :1) PM | 1 | , , | . | 2 | 1 | **74** | * | 11 | 9) | ) | 2 | 2 | **34** | - |
| - :92PM | 1 | 1. | . | 2 | 1 | **72** | 1 | 19 | ) 2 | ) | 2 | 1 | **91** | , |
| - :- ) PM | * | 1. | 12 | 2 | 1 | **72** | 1 | ) | - , | ) | 2 | 1 | **37** | 1 |
| **5 o lot** | . ) | 0. | . 1 | 2 | - | **42 a** | 1 | - 1 | 11- | . 1 | 2 | . | **1 30** | 19 |
| **% Appr6och** | 1. 31% | ) 03*% | , 23 % | 2% | , 31% | - | 5 | 1) 31% | . ) 3 % | 031% | 2% | 230% | - | 5 |
| **% 5 6Tot** | 131% | *31% | , 31% | 2% | 239% | **4a82 %** | 5 | 932% | 1- 3 % | 13*% | 2% | 231% | **4184%** | 5 |
| **. PH** | 23*1- | 23 00 | 23 , ) | | 5 13222 | **a8032** | 5 | 23 00 | 23 , - | 230. ) | | 5 23) 22 | **a8F31** | 5 |
| **LighTs** | , ) | . 0 | , 1 | 2 | - | **479** | 5 | 91 | 111 | 11 | 2 | , | **134** | 5 |
| **% LighTs** | 122% | 1) 31% | 122% | 2% | 122% | **1F84%** | 5 | 1) 31% | 103) % | 123) % | 2% | 122% | **1F87%** | 5 |
| **ArTcutoTed 5 rucks ond Singte-UniT5 rucks** | 2 | 2 | 2 | 2 | 2 | **a** | 5 | 2 | 2 | 2 | 2 | 2 | **a** | 5 |
| **% ArTcutoTed 5 rucks ond Singte-UniT5 rucks** | 2% | 2% | 2% | 2% | 2% | **a%** | 5 | 2% | 2% | 2% | 2% | 2% | **a%** | 5 |
| **Buses** | 2 | - | 2 | 2 | 2 | **2** | 5 | , | 9 | , | 2 | 2 | **F** | 5 |
| **% Buses** | 2% | - 31% | 2% | 2% | 2% | **181%** | 5 | - 31% | 13) % | 13) % | 2% | 2% | **18F%** | 5 |
| **Bicyctes 6n R6od** | 2 | 2 | 2 | 2 | 2 | **a** | 5 | 2 | 2 | 2 | 2 | 2 | **a** | 5 |
| **% Bicyctes 6n R6od** | 2% | 2% | 2% | 2% | 2% | **a%** | 5 | 2% | 2% | 2% | 2% | 2% | **a%** | 5 |
| PaTaLtHgknL | 5 | 5 | 5 | 5 | 5 | 5 | * | 5 | 5 | 5 | 5 | 5 | 5 | 19 |
| % PaTaLtHgknL | 5 | 5 | 5 | 5 | 5 | 5 | **3 % | 5 | 5 | 5 | 5 | 5 | 5 | 122% |
| BgcycuaL An s HALLwku( | 5 | 5 | 5 | 5 | 5 | 5 | 9 | 5 | 5 | 5 | 5 | 5 | 5 | 2 |
| % BgcycuaL An s HALLwku( | 5 | 5 | 5 | 5 | 5 | 5 | 9939% | 5 | 5 | 5 | 5 | 5 | 5 | 2% |

EPaTaLtHgknL knT BgcycuaL An s HALLwku(3i : i aY8R: Rghet8RR: Rghet An HaT8W. WeHd8U: U5WdHn



## 22. Genesee and Lafayette/Bleeker - TMC

Thu Jul 19, 2018
PM Peak (4PM : 5PM- : ) Oevall Peak r Huv
o ll AlaCCeC(sLi hgC, o vgLulagec TvutkCadc nLdi le:SdIgTvutkC, UuCeC, PeceCgvLadC, ULtBtleC
Hd y Hac, ULtBtleCHd AvHCCRalk-
o ll MHOewedgC
ml D549123, sHt agLHdD43.102033, :75.229804, nLge AHceDSgLta, NeR YHvk

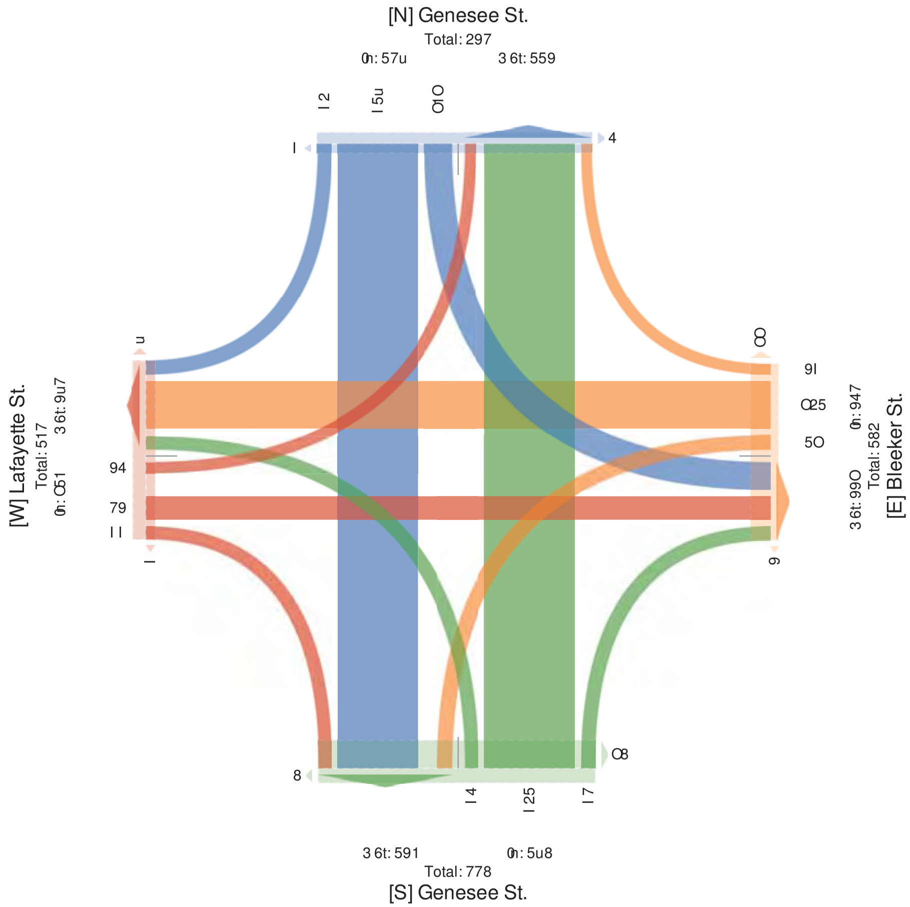
PvHOLcec bBDTvL:ngage TvaffLt
I aga, mdt.
184 Uakev y Hac,
AHageCOLlle, Po, 19320, Sn

| s ei<br>I lvet gLHd | GedeCee ng<br>NHvghbHudc | | | | | | | GedeCee ng<br>nHughbHudc | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TLwe | s | T | y | S | yy | App | Pec* | s | T | y | S | yy | App | Pec* | Int |
| 2018:07:19 4D0PM | 12 | 89 | 16 | 0 | 0 | **225** | 3 | 25 | 101 | 14 | 0 | 0 | **217** | 3 | **484** |
| 4D15PM | 7 | 99 | 8 | 0 | 1 | **220** | 3 | 28 | 89 | 14 | 0 | 0 | **242** | 1 | **438** |
| 4D30PM | 10 | 103 | 8 | 0 | 0 | **232** | 5 | 27 | 76 | 5 | 0 | 1 | **276** | 0 | **444** |
| 4D45PM | 6 | 103 | 5 | 0 | 0 | **221** | 13 | 21 | 80 | 3 | 0 | 2 | **279** | 4 | **475** |
| **Total** | 35 | 394 | 37 | 0 | 1 | **195** | 24 | 101 | 346 | 36 | 0 | 3 | **189** | 8 | **2402** |
| **% Approach** | 7.5% | 84.4% | 7.9% | 0% | 0.2% | - | : | 20.8% | 71.2% | 7.4% | 0% | 0.6% | - | : | : |
| **% Total** | 2.6% | 29.2% | 2.7% | 0% | 0.1% | **41.9%** | : | 7.5% | 25.6% | 2.7% | 0% | 0.2% | **49.7%** | : | : |
| **PHF** | 0.729 | 0.956 | 0.578 | : | 0.250 | **7.690** | : | 0.902 | 0.856 | 0.643 | : | 0.375 | **7.898** | : | 0.882 |
| **Lights** | 35 | 390 | 37 | 0 | 1 | **194** | : | 100 | 340 | 36 | 0 | 3 | **156** | : | 1329 |
| **% Lights** | 100% | 99.0% | 100% | 0% | 100% | **66.2%** | : | 99.0% | 98.3% | 100% | 0% | 100% | **68.9%** | : | 98.4% |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 2 | 0 | 0 | 0 | **3** | : | 0 | 4 | 0 | 0 | 0 | **1** | : | 6 |
| **% Articulated Trucks and Single-Unit Trucks** | 0% | 0.5% | 0% | 0% | 0% | **7.1%** | : | 0% | 1.2% | 0% | 0% | 0% | **7.8%** | : | 0.4% |
| **Buses** | 0 | 1 | 0 | 0 | 0 | **2** | : | 1 | 2 | 0 | 0 | 0 | **4** | : | 15 |
| **% Buses** | 0% | 0.3% | 0% | 0% | 0% | **7.3%** | : | 1.0% | 0.6% | 0% | 0% | 0% | **7.9%** | : | 1.1% |
| **Bicycles on Road** | 0 | 1 | 0 | 0 | 0 | **2** | : | 0 | 0 | 0 | 0 | 0 | **7** | : | 1 |
| **% Bicycles on Road** | 0% | 0.3% | 0% | 0% | 0% | **7.3%** | : | 0% | 0% | 0% | 0% | 0% | **7%** | : | 0.1% |
| PeceCgvLadC | : | : | : | : | : | : | 23 | : | : | : | : | : | : | 4 | |
| % PeceCgvLadC | : | : | : | : | : | : | 95.8% | : | : | : | : | : | : | 50.0% | : |
| ULtBtleCHd AvHCCRalk | : | : | : | : | : | : | 1 | : | : | : | : | : | : | 4 | |
| % ULtBtleCHd AvHCCRalk | : | : | : | : | : | : | 4.2% | : | : | : | : | : | : | 50.0% | : |

*PeceCgvLadCadc ULtBtleCHd AvHCCRalk. sDs efg y Dy Li hg y y Dy Li hgHd vec, TDThvu, SDS:Tuvd

**22. Genesee and Lafayette/Bleeker - TMC**
Thu Jul 19, 2018
PM Peak (4PM : 5PM- : ) Oevall Peakr Huv
o ll AlaCGeC(s Li hgC, o vgLulagec Tvut kCadc nLdi le:SdlgTvut kC, UuGeC, PeceGgMadC, ULtBt leC
Hd y Hac, ULtBt leCHd AvHCCRalk-
o ll MHOewedgC
nl D549123, s Ht agIHdD43.102033, :75.229804, nIge AHceDSgLta, NeR YHvk

PvHOLcec bBDTvLngge TvaffLt
I agg, ndt.
184 Uakevy Hac,
AHageCOlle, Po, 19320, Sn




Revised A - 141



**23. Genesee and Columbia - TMC**
Thu Jul 19, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549124, Location: 43.101462, -75.230927, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Columbia St. | | | | | | | Elizabeth St. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Eastbound | | | | | | | Westbound | | | | | | |
| Time | L | T | R | U | RR | App | Ped* | L | T | R | U | RR | App | Ped* |
| 2018-07-19 7:00AM | 5 | 2 | 2 | 0 | 1 | **15** | 5 | 5 | 3 | 2 | 0 | 2 | **17** | 3 |
| 7:15AM | 2 | 9 | 2 | 0 | 2 | **12** | 2 | 1 | 2 | 0 | 0 | 0 | **0** | 3 |
| 7:30AM | 2 | 15 | 4 | 0 | 0 | **71** | 4 | 3 | 4 | 0 | 0 | 1 | **4** | 0 |
| 7:45AM | 3 | 19 | 7 | 0 | 3 | **07** | 1 | 2 | 11 | 2 | 0 | 0 | **12** | 3 |
| Hourly Total | 12 | 45 | 15 | 0 | 6 | **34** | 12 | 11 | 20 | 4 | 0 | 3 | **04** | 9 |
| 8:00AM | 6 | 28 | 1 | 0 | 2 | **03** | 2 | 3 | 10 | 2 | 0 | 1 | **19** | 1 |
| 8:15AM | 8 | 60 | 9 | 0 | 0 | **33** | 3 | 3 | 13 | 7 | 0 | 1 | **78** | 8 |
| 8:30AM | 5 | 18 | 5 | 0 | 0 | **74** | 5 | 3 | 11 | 6 | 0 | 1 | **71** | 5 |
| 8:45AM | 5 | 20 | 6 | 0 | 1 | **07** | 3 | 4 | 14 | 3 | 0 | 3 | **78** | 4 |
| Hourly Total | 24 | 126 | 21 | 0 | 3 | **138** | 13 | 13 | 48 | 18 | 0 | 6 | **42** | 18 |
| 9:00AM | 0 | 1 | 0 | 0 | 0 | **1** | 0 | 0 | 0 | 0 | 0 | 0 | **5** | 0 |
| Hourly Total | 0 | 1 | 0 | 0 | 0 | **1** | 0 | 0 | 0 | 0 | 0 | 0 | **5** | 0 |
| 4:00PM | 7 | 38 | 15 | 0 | 5 | **92** | 5 | 10 | 39 | 24 | 0 | 0 | **30** | 9 |
| 4:15PM | 14 | 30 | 10 | 0 | 1 | **22** | 9 | 10 | 39 | 16 | 0 | 0 | **92** | 12 |
| 4:30PM | 8 | 24 | 10 | 0 | 2 | **88** | 9 | 10 | 50 | 25 | 0 | 2 | **43** | 6 |
| 4:45PM | 6 | 21 | 4 | 0 | 2 | **00** | 4 | 7 | 17 | 11 | 0 | 2 | **03** | 4 |
| Hourly Total | 35 | 113 | 39 | 0 | 10 | **163** | 27 | 37 | 145 | 76 | 0 | 4 | **797** | 31 |
| 5:00PM | 14 | 19 | 9 | 0 | 0 | **87** | 7 | 9 | 24 | 10 | 0 | 2 | **82** | 2 |
| 5:15PM | 10 | 5 | 5 | 0 | 4 | **78** | 4 | 6 | 20 | 2 | 0 | 0 | **74** | 5 |
| 5:30PM | 7 | 18 | 5 | 0 | 1 | **01** | 9 | 7 | 17 | 4 | 0 | 0 | **74** | 7 |
| 5:45PM | 3 | 24 | 5 | 0 | 1 | **00** | 6 | 3 | 8 | 7 | 0 | 3 | **71** | 1 |
| Hourly Total | 34 | 66 | 24 | 0 | 6 | **105** | 26 | 25 | 69 | 23 | 0 | 5 | **177** | 15 |
| 6:00PM | 0 | 0 | 0 | 0 | 0 | **5** | 0 | 0 | 0 | 0 | 0 | 0 | **5** | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | **5** | 0 | 0 | 0 | 0 | 0 | 0 | **5** | 0 |
| **Total** | 105 | 351 | 99 | 0 | 25 | **245** | 78 | 86 | 282 | 121 | 0 | 18 | **253** | 73 |
| **% Approach** | 18.1% | 60.5% | 17.1% | 0% | 4.3% | - | - | 17.0% | 55.6% | 23.9% | 0% | 3.6% | - | - |
| **% Total** | 2.7% | 9.1% | 2.6% | 0% | 0.7% | **12.1%** | - | 2.2% | 7.3% | 3.2% | 0% | 0.5% | **10.7%** | - |
| **Lights** | 100 | 342 | 95 | 0 | 25 | **297** | - | 63 | 277 | 120 | 0 | 18 | **834** | - |
| **% Lights** | 95.2% | 97.4% | 96.0% | 0% | 100% | **69.6%** | - | 73.3% | 98.2% | 99.2% | 0% | 100% | **68.0%** | - |
| **Articulated Trucks and Single-Unit Trucks** | 5 | 1 | 3 | 0 | 0 | **6** | - | 0 | 5 | 0 | 0 | 0 | **2** | - |
| **% Articulated Trucks and Single-Unit Trucks** | 4.8% | 0.3% | 3.0% | 0% | 0% | **1.9%** | - | 0% | 1.8% | 0% | 0% | 0% | **1.5%** | - |
| **Buses** | 0 | 5 | 1 | 0 | 0 | **9** | - | 22 | 0 | 0 | 0 | 0 | **77** | - |
| **% Buses** | 0% | 1.4% | 1.0% | 0% | 0% | **1.5%** | - | 25.6% | 0% | 0% | 0% | 0% | **8.0%** | - |
| **Bicycles on Road** | 0 | 3 | 0 | 0 | 0 | **0** | - | 1 | 0 | 1 | 0 | 0 | **7** | - |
| **% Bicycles on Road** | 0% | 0.9% | 0% | 0% | 0% | **5.2%** | - | 1.2% | 0% | 0.8% | 0% | 0% | **5.8%** | - |
| Pedestrians | - | - | - | - | - | - | 76 | - | - | - | - | - | - | 72 |
| % Pedestrians | - | - | - | - | - | - | 97.4% | - | - | - | - | - | - | 98.6% |
| Bicycles on Crosswalk | - | - | - | - | - | - | 2 | - | - | - | - | - | - | 1 |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 2.6% | - | - | - | - | - | - | 1.4% |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

## 23. Genesee and Columbia - TMC

Thu Jul 19, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549124, Location: 43.101462, -75.230927, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg / Direction / Time | Genesee St. Northbound L | T | R | U | RR | App | Ped* | Genesee St. Southbound L | T | R | U | RR | App | Ped* | Int |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2018-07-19 7:00AM | 1 | 27 | 1 | 0 | 1 | **16** | 1 | 6 | 51 | 0 | 0 | 0 | **28** | 1 | **564** |
| 7:15AM | 4 | 32 | 4 | 0 | 0 | **36** | 0 | 6 | 79 | 1 | 0 | 0 | **97** | 2 | **533** |
| 7:30AM | 3 | 30 | 2 | 0 | 1 | **17** | 0 | 8 | 77 | 3 | 0 | 0 | **99** | 1 | **521** |
| 7:45AM | 6 | 43 | 4 | 0 | 0 | **21** | 4 | 16 | 97 | 5 | 0 | 0 | **559** | 2 | **059** |
| Hourly Total | 14 | 132 | 11 | 0 | 2 | **524** | 5 | 36 | 304 | 9 | 0 | 0 | **134** | 6 | **703** |
| 8:00AM | 5 | 38 | 5 | 0 | 1 | **34** | 1 | 21 | 90 | 7 | 0 | 1 | **554** | 1 | **005** |
| 8:15AM | 7 | 43 | 4 | 0 | 0 | **23** | 3 | 33 | 102 | 6 | 0 | 0 | **535** | 9 | **047** |
| 8:30AM | 8 | 39 | 7 | 0 | 1 | **22** | 4 | 25 | 82 | 6 | 0 | 0 | **551** | 6 | **058** |
| 8:45AM | 8 | 56 | 10 | 0 | 1 | **82** | 4 | 20 | 93 | 3 | 0 | 0 | **557** | 4 | **038** |
| Hourly Total | 28 | 176 | 26 | 0 | 3 | **011** | 12 | 99 | 367 | 22 | 0 | 1 | **394** | 20 | **495** |
| 9:00AM | 0 | 0 | 0 | 0 | 0 | **6** | 0 | 0 | 0 | 0 | 0 | 0 | **6** | 1 | **5** |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | **6** | 0 | 0 | 0 | 0 | 0 | 0 | **6** | 1 | **5** |
| 4:00PM | 13 | 93 | 4 | 0 | 0 | **556** | 5 | 5 | 110 | 5 | 0 | 1 | **505** | 4 | **174** |
| 4:15PM | 13 | 78 | 6 | 0 | 1 | **49** | 2 | 9 | 89 | 6 | 0 | 0 | **563** | 12 | **100** |
| 4:30PM | 8 | 86 | 4 | 0 | 1 | **44** | 3 | 10 | 81 | 3 | 0 | 0 | **43** | 4 | **103** |
| 4:45PM | 10 | 91 | 2 | 0 | 1 | **563** | 4 | 9 | 74 | 5 | 0 | 0 | **99** | 3 | **070** |
| Hourly Total | 44 | 348 | 16 | 0 | 3 | **355** | 14 | 33 | 354 | 19 | 0 | 1 | **368** | 23 | **5088** |
| 5:00PM | 11 | 99 | 1 | 0 | 0 | **555** | 0 | 4 | 106 | 9 | 0 | 0 | **554** | 4 | **158** |
| 5:15PM | 12 | 75 | 2 | 0 | 0 | **94** | 7 | 4 | 69 | 9 | 1 | 2 | **92** | 2 | **007** |
| 5:30PM | 5 | 52 | 2 | 0 | 3 | **70** | 2 | 0 | 66 | 7 | 0 | 2 | **82** | 0 | **547** |
| 5:45PM | 11 | 64 | 4 | 0 | 0 | **84** | 1 | 1 | 80 | 4 | 0 | 0 | **92** | 3 | **059** |
| Hourly Total | 39 | 290 | 9 | 0 | 3 | **135** | 10 | 9 | 321 | 29 | 1 | 4 | **173** | 9 | **428** |
| 6:00PM | 0 | 0 | 0 | 0 | 0 | **6** | 0 | 0 | 0 | 0 | 0 | 0 | **6** | 0 | **6** |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | **6** | 0 | 0 | 0 | 0 | 0 | 0 | **6** | 0 | **6** |
| **Total** | 125 | 946 | 62 | 0 | 11 | **5533** | 41 | 177 | 1346 | 79 | 1 | 6 | **5764** | 59 | **1936** |
| **% Approach** | 10.9% | 82.7% | 5.4% | 0% | 1.0% | - | - | 11.0% | 83.7% | 4.9% | 0.1% | 0.4% | - | - | - |
| **% Total** | 3.3% | 24.6% | 1.6% | 0% | 0.3% | **04.9%** | - | 4.6% | 35.1% | 2.1% | 0% | 0.2% | **35.4%** | - | - |
| **Lights** | 122 | 928 | 39 | 0 | 5 | **5643** | - | 171 | 1313 | 73 | 1 | 6 | **5273** | - | 3698 |
| **% Lights** | 97.6% | 98.1% | 62.9% | 0% | 45.5% | **42.7%** | - | 96.6% | 97.5% | 92.4% | 100% | 100% | **48.0%** | - | 96.3% |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 15 | 0 | 0 | 0 | **52** | - | 1 | 23 | 4 | 0 | 0 | **09** | - | 57 |
| **% Articulated Trucks and Single-Unit Trucks** | 0% | 1.6% | 0% | 0% | 0% | **5.1%** | - | 0.6% | 1.7% | 5.1% | 0% | 0% | **5.8%** | - | 1.5% |
| **Buses** | 2 | 2 | 23 | 0 | 6 | **11** | - | 5 | 8 | 0 | 0 | 0 | **51** | - | 74 |
| **% Buses** | 1.6% | 0.2% | 37.1% | 0% | 54.5% | **0.4%** | - | 2.8% | 0.6% | 0% | 0% | 0% | **6.9%** | - | 1.9% |
| **Bicycles on Road** | 1 | 1 | 0 | 0 | 0 | **0** | - | 0 | 2 | 2 | 0 | 0 | **3** | - | 11 |
| **% Bicycles on Road** | 0.8% | 0.1% | 0% | 0% | 0% | **6.0%** | - | 0% | 0.1% | 2.5% | 0% | 0% | **6.0%** | - | 0.3% |
| Pedestrians | - | - | - | - | - | - | 39 | - | - | - | - | - | - | 55 | |
| % Pedestrians | - | - | - | - | - | - | 95.1% | - | - | - | - | - | - | 93.2% | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 2 | - | - | - | - | - | - | 4 | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 4.9% | - | - | - | - | - | - | 6.8% | - |

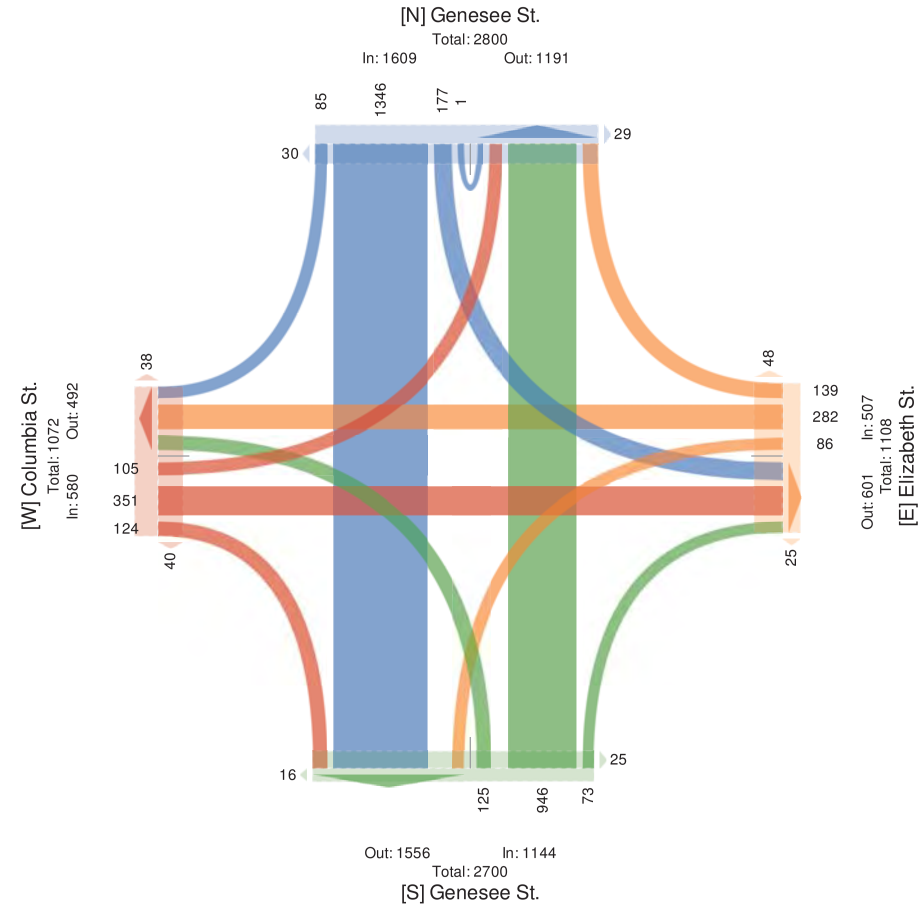
*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn



## 23. Genesee and Columbia - TMC

Thu Jul 19, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549124, Location: 43.101462, -75.230927, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US



## 23. Genesee and Columbia - TMC

Thu Jul 19, 2018
Forced Peak (7:45AM - 8:45AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549124, Location: 43.101462, -75.230927, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Columbia St. | | | | | | | Elizabeth St. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Eastbound | | | | | | | Westbound | | | | | | |
| Time | L | T | R | U | RR | App | Ped* | L | T | R | U | RR | App | Ped* |
| 2018-07-19 7:45AM | 3 | 19 | 7 | 0 | 3 | **24** | 1 | 2 | 11 | 2 | 0 | 0 | **03** | 3 |
| 8:00AM | 6 | 28 | 1 | 0 | 2 | **27** | 2 | 3 | 10 | 2 | 0 | 1 | **09** | 1 |
| 8:15AM | 8 | 60 | 9 | 0 | 0 | **77** | 3 | 3 | 13 | 7 | 0 | 1 | **41** | 8 |
| 8:30AM | 5 | 18 | 5 | 0 | 0 | **45** | 5 | 3 | 11 | 6 | 0 | 1 | **40** | 5 |
| **6 Tct a** | 22 | 125 | 22 | 0 | 5 | **071** | 11 | 11 | 45 | 17 | 0 | 3 | **79** | 17 |
| **l %App Tt r c** | 12.6% | 71.8% | 12.6% | 0% | 2.9% | **h** | - | 14.5% | 59.2% | 22.4% | 0% | 3.9% | **h** | - |
| **l % Tct a** | 2.3% | 13.1% | 2.3% | 0% | 0.5% | **05-2l** | - | 1.2% | 4.7% | 1.8% | 0% | 0.3% | **5-8l** | - |
| **. PH** | 0.688 | 0.521 | 0.611 | - | 0.417 | **8-393** | - | 0.917 | 0.865 | 0.607 | - | 0.750 | **8-7F4** | - |
| **Ligc cs** | 21 | 124 | 19 | 0 | 5 | **09F** | - | 5 | 41 | 16 | 0 | 3 | **93** | - |
| **l %Ligc cs** | 95.5% | 99.2% | 86.4% | 0% | 100% | **F7-0l** | - | 45.5% | 91.1% | 94.1% | 0% | 100% | **53-3l** | - |
| **A dru at ced% urks %nd %ingal Unio% urks** | 1 | 0 | 2 | 0 | 0 | **2** | - | 0 | 4 | 0 | 0 | 0 | **1** | - |
| **l %A dru at ced% urks %nd %ingal Unio% urks** | 4.5% | 0% | 9.1% | 0% | 0% | **0-7l** | - | 0% | 8.9% | 0% | 0% | 0% | **3-2l** | - |
| **Buses** | 0 | 1 | 1 | 0 | 0 | **4** | - | 6 | 0 | 0 | 0 | 0 | **9** | - |
| **l %Buses** | 0% | 0.8% | 4.5% | 0% | 0% | **0-0l** | - | 54.5% | 0% | 0% | 0% | 0% | **7-Fl** | - |
| **Biryrles %n %RTt d** | 0 | 0 | 0 | 0 | 0 | **8** | - | 0 | 0 | 1 | 0 | 0 | **0** | - |
| **l %Biryrles %n %RTt d** | 0% | 0% | 0% | 0% | 0% | **8l** | - | 0% | 0% | 5.9% | 0% | 0% | **0-2l** | - |
| Pedestrians | - | - | - | - | - | - | 11 | - | - | - | - | - | - | 17 |
| % Pedestrians | - | - | - | - | - | - | 100% | - | - | - | - | - | - | 100% |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 0% | - | - | - | - | - | - | 0% |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn



## 23. Genesee and Columbia - TMC

Thu Jul 19, 2018
Forced Peak (4M5) A C8M5) As
) ll Llaiiei (gtnhSi , ) rSculaSed Trucki aUd BtUnleGy UtSTrucki , Ruiei , Pedei SrtaUi , Rtcwclei oUv oad, Rtcwclei oULroiimalks
) ll A oI e De US
:3 M5- 912- , gocaStoUM. 7101- N2, C457 2. 0924, BtSe LodeMy Stca, Yembork

ProI tded f wMTrtCBSaSe TraGfc
3 aSa, :Uc7
18- Raker v oad,
LoaSei I tlle, P) , 19. 20, y B

| gen | * eUeiee BS7 | | | | | | | * eUeiee BS7 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 trecStoU | YorShf ouUd | | | | | | | BouShf ouUd | | | | | | | |
| TtDe | g | T | v | y | vv | App | Ped6 | g | T | v | y | vv | App | Ped6 | Int |
| 2018C04C19 4M5) A | N | - . | - | 0 | 0 | **25** | - | 1N | 94 | 5 | 0 | 0 | **117** | 2 | **417** |
| 8M0) A | 5 | . 8 | 5 | 0 | 1 | **80** | 1 | 21 | 90 | 4 | 0 | 1 | **110** | 1 | **441** |
| 8M5) A | 4 | - . | - | 0 | 0 | **28** | . | . . | 102 | N | 0 | 0 | **181** | 9 | **403** |
| 8M0) A | 8 | . 9 | 4 | 0 | 1 | **22** | - | 25 | 82 | N | 0 | 0 | **115** | N | **416** |
| **9 Ttoa** | 2N | 1N. | 20 | 0 | 2 | **411** | 12 | 95 | . 41 | 2- | 0 | 1 | **801** | 18 | **024** |
| **l %App Torc** | 127. % | 447. % | 975% | 0% | 079% | **h** | C | 197. % | 457N% | - 79% | 0% | 072% | **h** | C | C |
| **l % Ttoa** | 274% | 1471% | 271% | 0% | 072% | **44-4l** | C | 1070% | . 970% | 275% | 0% | 071% | **21-3l** | C | C |
| **. PH** | 0781. | 079- 8 | 0741- | C | 07500 | **F-020** | C | 07420 | 07909 | 07854 | C | 07250 | **F-761** | C | 0780- |
| **Ligc ts** | 2- | 158 | 1- | 0 | 0 | **103** | C | 9. | . 54 | 2. | 0 | 1 | **868** | C | 90- |
| **l %Ligc ts** | 927. % | 9N79% | 4070% | 0% | 0% | **04-0l** | C | 9479% | 9N72% | 9578% | 0% | 100% | **03-2l** | C | 9570% |
| **A tiruaoted% urks %nd %ingal Unit% urks** | 0 | 5 | 0 | 0 | 0 | **2** | C | 1 | 12 | 1 | 0 | 0 | **18** | C | 2N |
| **l %A tiruaoted% urks %nd %ingal Unit% urks** | 0% | . 71% | 0% | 0% | 0% | **4-8l** | C | 171% | . 72% | - 72% | 0% | 0% | **4-0l** | C | 274% |
| **Buses** | 2 | 0 | N | 0 | 2 | **1F** | C | 1 | 2 | 0 | 0 | 0 | **5** | C | 21 |
| **l %Buses** | 474% | 0% | . 070% | 0% | 100% | **8-6l** | C | 171% | 075% | 0% | 0% | 0% | **F-3l** | C | 272% |
| **Biryrles %n %RTod** | 0 | 0 | 0 | 0 | 0 | **F** | C | 0 | 0 | 0 | 0 | 0 | **F** | C | 1 |
| **l %Biryrles %n %RTod** | 0% | 0% | 0% | 0% | 0% | **Fl** | C | 0% | 0% | 0% | 0% | 0% | **Fl** | C | 071% |
| PedeiSrtaUi | C | C | C | C | C | C | 11 | C | C | C | C | C | C | 14 | |
| % PedeiSrtaUi | C | C | C | C | C | C | 9174% | C | C | C | C | C | C | 9- 7- % | C |
| Rtcwclei oULroiimalk | C | C | C | C | C | C | 1 | C | C | C | C | C | C | 1 | |
| % Rtcwclei oULroiimalk | C | C | C | C | C | C | 87. % | C | C | C | C | C | C | 57N% | C |

6PedeiSrtaUi aUd Rtcwclei oULroiimalk7gMgeGS, v MFtnhS, v v MFtnhSoUred, TMThru, y My CTurU

## 23. Genesee and Columbia - TMC

Thu Jul 19, 2018
FLengt ( g7AM4P6) C a84P6) C s
) lli l7rrgr MdkhS, ) eShul7Sgt TeunAr 7Ut BdUklgay UdSTeunAr, ourgr, ( gt grSed7Ur, odRnlgr LUwL7t , odRnlgr LUi eLrrv7lAs
) ll C LmgI gUSr
D 46P912P, cLn7SdLU4P53101P. 2, a-6325092-, BdSg i Lt g4y Sth7, Ngv YLeA

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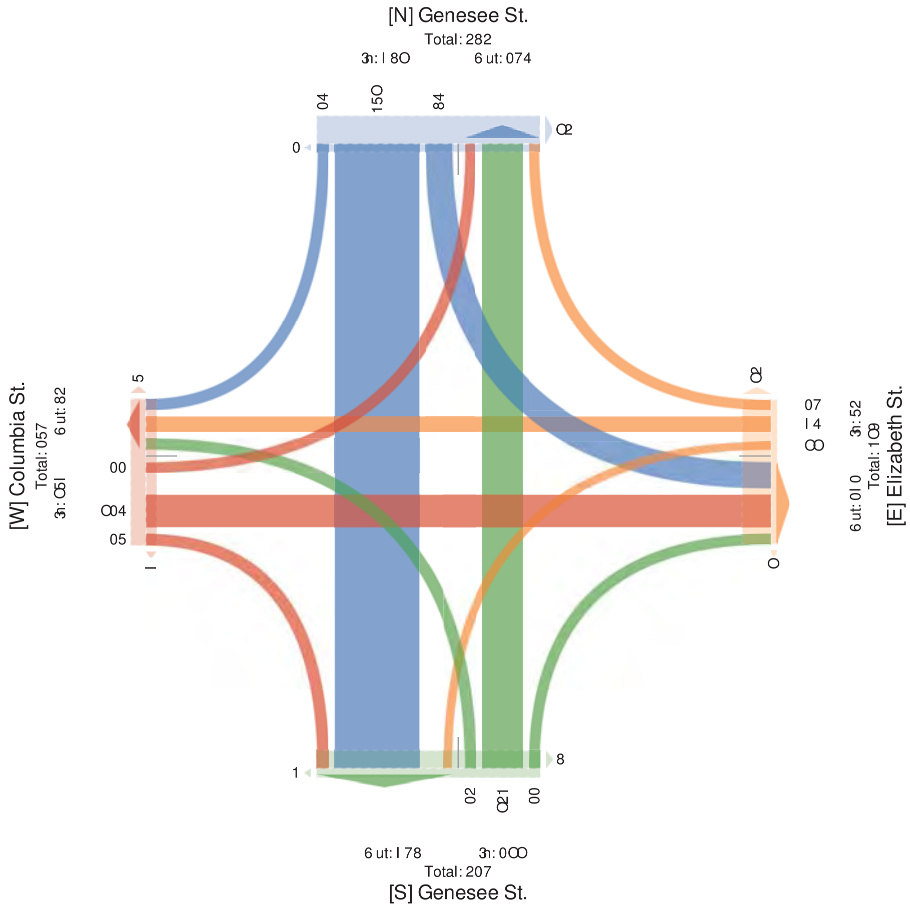




## 23. Genesee and Columbia - TMC

Thu Jul 19, 2018
AM Peak (8AM - 9AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549124, Location: 43.101462, -75.230927, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Columbia St. | | | | | | | Elizabeth St. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Eastbound | | | | | | | Westbound | | | | | | |
| Time | L | T | R | U | RR | App | Ped* | L | T | R | U | RR | App | Ped* |
| 2018-07-19 8:00AM | 6 | 28 | 1 | 0 | 2 | 24 | 2 | 3 | 10 | 2 | 0 | 1 | 03 | 1 |
| 8:15AM | 8 | 60 | 9 | 0 | 0 | 44 | 3 | 3 | 13 | 7 | 0 | 1 | 79 | 8 |
| 8:30AM | 5 | 18 | 5 | 0 | 0 | 71 | 5 | 3 | 11 | 6 | 0 | 1 | 70 | 5 |
| 8:45AM | 5 | 20 | 6 | 0 | 1 | 27 | 3 | 4 | 14 | 3 | 0 | 3 | 79 | 4 |
| 5 6Tbt | 24 | 126 | 21 | 0 | 3 | 049 | 13 | 13 | 48 | 18 | 0 | 6 | 1a | 18 |
| l %App 6orc | 13.8% | 72.4% | 12.1% | 0% | 1.7% | h | - | 15.3% | 56.5% | 21.2% | 0% | 7.1% | h | - |
| l %6Tbt | 2.4% | 12.8% | 2.1% | 0% | 0.3% | 04-4l | - | 1.3% | 4.9% | 1.8% | 0% | 0.6% | 1-4l | - |
| 8. P | 0.750 | 0.525 | 0.583 | - | 0.375 | Ha3a | - | 0.813 | 0.857 | 0.643 | - | 0.500 | H11a | - |
| Fli cTg | 24 | 124 | 19 | 0 | 3 | 04H | - | 8 | 45 | 17 | 0 | 6 | 43 | - |
| l %Fli cTg | 100% | 98.4% | 90.5% | 0% | 100% | s4-4l | - | 61.5% | 93.8% | 94.4% | 0% | 100% | 1s-91 | - |
| A TrutoTed% urkg%nd%Lni telUnlT% urkg | 0 | 0 | 2 | 0 | 0 | 7 | - | 0 | 3 | 0 | 0 | 0 | 2 | - |
| l %A TrutoTed% urkg%nd%Lni telUnlT% urkg | 0% | 0% | 9.5% | 0% | 0% | 0-0l | - | 0% | 6.3% | 0% | 0% | 0% | 2-al | - |
| Bugeg | 0 | 2 | 0 | 0 | 0 | 7 | - | 5 | 0 | 0 | 0 | 0 | a | - |
| l %Bugeg | 0% | 1.6% | 0% | 0% | 0% | 0-0l | - | 38.5% | 0% | 0% | 0% | 0% | a-s1 | - |
| BIryrteg%n%R6od | 0 | 0 | 0 | 0 | 0 | H | - | 0 | 0 | 1 | 0 | 0 | 0 | - |
| l %BIryrteg%n%R6od | 0% | 0% | 0% | 0% | 0% | H | - | 0% | 0% | 5.6% | 0% | 0% | 0-71 | - |
| Pedestrians | - | - | - | - | - | - | 13 | - | - | - | - | - | - | 18 |
| % Pedestrians | - | - | - | - | - | - | 100% | - | - | - | - | - | - | 100% |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 0% | - | - | - | - | - | - | 0% |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn



Revised A - 144

**23. Genesee and Columbia - TMC**
Thu Jul 19, 2018
AM Peak (8AM 79AM:
All 3 la--e- () ĠhL-, Ai lĠulalet Tiugk- ar t cĠs le7d r ĠTiugk-, nu-e-, Pet e-liĠar-, nĠSgle-
Ur BUat , nĠSgle- Ur 3 iU--y alk:
All MUbeR er L-
w m1 D912D, ) UgalĠUr mD5401D. 2, 7N1 425092N, c Ġe 3 Ut emd lĠa, Yey b Uik

Pi UbĠet f SmTi Ġc laLe TiaĠĠ
v aLa, wr g4
18Dnakei BUat ,
3 UaLe-oĠle, PA, 19520, d c

| ) es<br>v ĠegĠUr | * er e-ee cl4<br>YUiLhf Uur t | | | | | | | * er e-ee cl4<br>cUuLhf Uur t | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TĠR e | ) | T | B | d | BB | App | Pet 6 | ) | T | B | d | BB | App | Pet 6 | Int |
| 201870N719 8m00 AM | I | 58 | I | 0 | 1 | **25** | 1 | 21 | 90 | N | 0 | 1 | **115** | 1 | **771** |
| 8m1I AM | N | D5 | D | 0 | 0 | **42** | 5 | 55 | 102 | . | 0 | 0 | **121** | 9 | **758** |
| 8m50 AM | 8 | 59 | N | 0 | 1 | **44** | D | 2I | 82 | . | 0 | 0 | **110** | . | **713** |
| 8mDI AM | 8 | I . | 10 | 0 | 1 | **34** | D | 20 | 95 | 5 | 0 | 0 | **118** | D | **723** |
| **6 9tTo** | 28 | 1N. | 2. | 0 | 5 | **700** | 12 | 99 | 5. N | 22 | 0 | 1 | **2a5** | 20 | **5a1** |
| **l %App 9Trc** | 1240% | NI 4 % | 1142% | 0% | 145% | **h** | 7 | 2042% | NI 41% | D4 % | 0% | 042% | **h** | 7 | 7 |
| **l %9tTo** | 249% | 1N49% | 24N% | 0% | 045% | **70-al** | 7 | 1041% | 5N4D% | 242% | 0% | 041% | **25-al** | 7 | 7 |
| **. PH** | 048NI | 04N8. | 04 I 0 | 7 | 04NI 0 | **F-333** | 7 | 04NI 0 | 04900 | 04N8. | 7 | 042I 0 | **F-a83** | 7 | 04829 |
| **Ligcts** | 2N | 1N2 | 20 | 0 | 1 | **77F** | 7 | 98 | 5I 5 | 21 | 0 | 1 | **230** | 7 | 959 |
| **l %Ligcts** | 9. 4D% | 9N4N% | N. 49% | 0% | 5545% | **52-2l** | 7 | 9940% | 9. 42% | 9I 4 % | 0% | 100% | **58-3l** | 7 | 9I 4N% |
| **A tiruoTted% urks%nd%ingoelUnit% urks** | 0 | 5 | 0 | 0 | 0 | **0** | 7 | 0 | 12 | 1 | 0 | 0 | **10** | 7 | 21 |
| **l %A tiruoTted% urks%nd%ingoelUnit% urks** | 0% | 14N% | 0% | 0% | 0% | **1-0l** | 7 | 0% | 545% | D4 % | 0% | 0% | **7-3l** | 7 | 241% |
| **Buses** | 1 | 1 | . | 0 | 2 | **1F** | 7 | 1 | 2 | 0 | 0 | 0 | **0** | 7 | 20 |
| **l %Buses** | 54 % | 04 % | 2541% | 0% | . . 4N% | **2-0l** | 7 | 140% | 041 % | 0% | 0% | 0% | **F-8l** | 7 | 240% |
| **Bir yr oes %n %R9Td** | 0 | 0 | 0 | 0 | 0 | **F** | 7 | 0 | 0 | 0 | 0 | 0 | **F** | 7 | 1 |
| **l %Bir yr oes %n %R9Td** | 0% | 0% | 0% | 0% | 0% | **Fl** | 7 | 0% | 0% | 0% | 0% | 0% | **Fl** | 7 | 041% |
| Pet e-liĠar- | 7 | 7 | 7 | 7 | 7 | 7 | 12 | 7 | 7 | 7 | 7 | 7 | 7 | 19 | |
| % Pet e-liĠar- | 7 | 7 | 7 | 7 | 7 | 7 | 100% | 7 | 7 | 7 | 7 | 7 | 7 | 9I 40% | 7 |
| nĠSgle- Ur 3 iU--y alk | 7 | 7 | 7 | 7 | 7 | 7 | 0 | 7 | 7 | 7 | 7 | 7 | 7 | 1 | |
| % nĠSgle- Ur 3 iU--y alk | 7 | 7 | 7 | 7 | 7 | 7 | 0% | 7 | 7 | 7 | 7 | 7 | 7 | I 40% | 7 |

6Pet e-liĠar- ar t nĠSgle- Ur 3 iU--y alk4) m) eĠL, BmBĠ hL, BBmBĠ hLUr iet , TmThiu, d md 7Tuir



**23. Genesee and Columbia - TMC**
Thu Jul 19, 2018
AM Peak (8AM 79AM:
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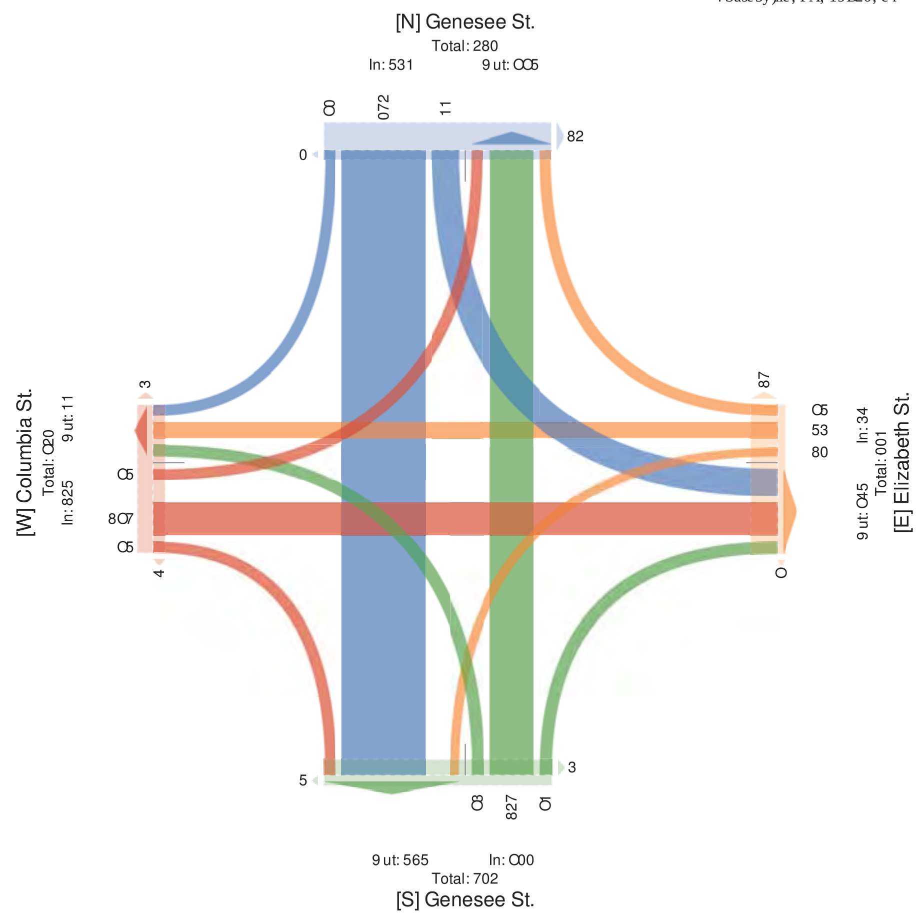


## 23. Genesee and Columbia - TMC

Thu Jul 19, 2018
PM Peak (4PM - 5PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549124, Location: 43.101462, -75.230927, Site Code: Utica, New York

TRI-STATE TRAFFIC DATA
Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Columbia St. | | | | | | | Elizabeth St. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Eastbound | | | | | | | Westbound | | | | | | |
| Time | L | T | R | U | RR | App | Ped* | L | T | R | U | RR | App | Ped* |
| 2018-07-19 4:00PM | 7 | 38 | 15 | 0 | 5 | 24 | 5 | 10 | 39 | 24 | 0 | 0 | 03 | 9 |
| 4:15PM | 14 | 30 | 10 | 0 | 1 | 44 | 9 | 10 | 39 | 16 | 0 | 0 | 24 | 12 |
| 4:30PM | 8 | 24 | 10 | 0 | 2 | 77 | 9 | 10 | 50 | 25 | 0 | 2 | 90 | 6 |
| 4:45PM | 6 | 21 | 4 | 0 | 2 | 33 | 4 | 7 | 17 | 11 | 0 | 2 | 30 | 4 |
| 1 5tıc | 35 | 113 | 39 | 0 | 10 | ta0 | 27 | 37 | 145 | 76 | 0 | 4 | l 2l | 31 |
| % Appr5Tch | 17.8% | 57.4% | 19.8% | 0% | 5.1% | - | - | 14.1% | 55.3% | 29.0% | 0% | 1.5% | - | - |
| % 1 56To | 2.7% | 8.8% | 3.1% | 0% | 0.8% | t487% | - | 2.9% | 11.4% | 6.0% | 0% | 0.3% | l. 84% | - |
| PHF | 0.625 | 0.743 | 0.650 | - | 0.500 | . 8049 | - | 0.925 | 0.725 | 0.760 | - | 0.500 | . 8043 | - |
| Ligh6s | 34 | 110 | 39 | 0 | 10 | ta3 | - | 32 | 144 | 76 | 0 | 4 | l 42 | - |
| % Ligh6s | 97.1% | 97.3% | 100% | 0% | 100% | a98 % | - | 86.5% | 99.3% | 100% | 0% | 100% | a080% | - |
| Ar6icuo̶T6ed 1 rucks Tnd Singoe-Uni61 rucks | 1 | 1 | 0 | 0 | 0 | l | - | 0 | 1 | 0 | 0 | 0 | t | - |
| % Ar6icuoT6ed 1 rucks Tnd Singoe-Uni61 rucks | 2.9% | 0.9% | 0% | 0% | 0% | t8 % | - | 0% | 0.7% | 0% | 0% | 0% | . 87% | - |
| Buses | 0 | 1 | 0 | 0 | 0 | t | - | 5 | 0 | 0 | 0 | 0 | 4 | - |
| % Buses | 0% | 0.9% | 0% | 0% | 0% | . 84% | - | 13.5% | 0% | 0% | 0% | 0% | t8a% | - |
| Bicycoes 5n R5Td | 0 | 1 | 0 | 0 | 0 | t | - | 0 | 0 | 0 | 0 | 0 | . | - |
| % Bicycoes 5n R5Td | 0% | 0.9% | 0% | 0% | 0% | . 84% | - | 0% | 0% | 0% | 0% | 0% | . % | - |
| Pedestrians | - | - | - | - | - | - | 27 | - | - | - | - | - | - | 30 |
| % Pedestrians | - | - | - | - | - | - | 100% | - | - | - | - | - | - | 96.8% |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 1 |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 0% | - | - | - | - | - | - | 3.2% |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn



## 23. Genesee and Columbia - TMC

Thu Jul 19, 2018
PM Peak (4PM : 5PM- : ) Oevall Peak r Huv
o ll AlaCCeC(sLi hgC, ovgLtulagec Tvut kCadc nLdi le:SdIgTvut kC, UuCeC, PeceCgvladC, ULt Bt leC Hd y Hac, ULt Bt leCHd AvHCCRalk-
o ll MHOewedgC
nI D549124, sHt agLHdD43.101472, :N5.23092N, nLge AHceDSgLt a, YeR b Hvk

TRI-STATE TRAFFIC DATA
PvHOLcec f BDTvL:ngage TvaGLt
I aga, nLt.
184 Uakevy Hac,
AHageCOLle, Po, 19320, Sn

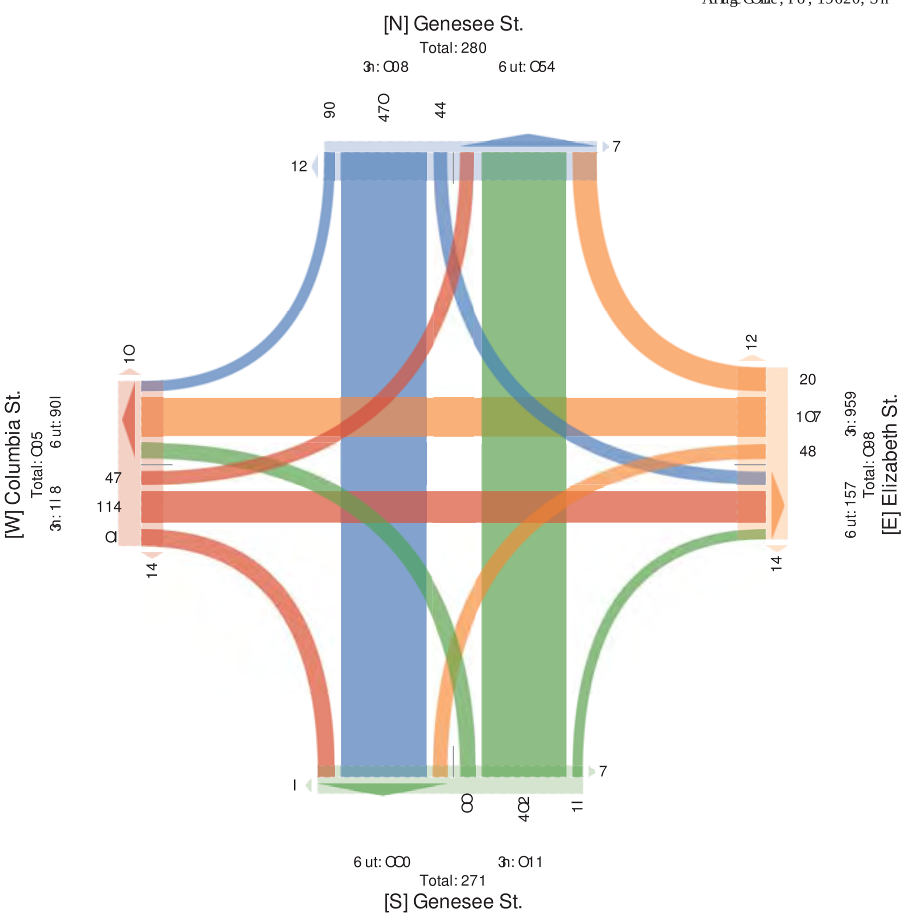
| s ei | * edeCee ng | | | | | | | * edeCee ng | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| I Lvet gLHd | YHvghf Hudc | | | | | | | nHughf Hudc | | | | | | | |
| TLwe | s | T | y | S | yy | App | Pec6 | s | T | y | S | yy | App | Pec6 | Int |
| 2018:0N:19 4D0PM | 13 | 93 | 4 | 0 | 0 | 225 | 5 | 5 | 110 | 5 | 0 | 1 | 212 | 4 | 748 |
| 4D5PM | 13 | N8 | 7 | 0 | 1 | 80 | 2 | 9 | 89 | 7 | 0 | 0 | 253 | 12 | 711 |
| 4D30PM | 8 | 87 | 4 | 0 | 1 | 88 | 3 | 10 | 81 | 3 | 0 | 0 | 83 | 4 | 713 |
| 4D45PM | 10 | 91 | 2 | 0 | 1 | 253 | 4 | 9 | N4 | 5 | 0 | 0 | 00 | 3 | 141 |
| 6 9tıc | 44 | 348 | 17 | 0 | 3 | 3 22 | 14 | 33 | 354 | 19 | 0 | 1 | 35a | 23 | 21aa |
| l %App 9Trc | 10.N% | 84.N% | 3.9% | 0% | 0.N% | h | : | 8.1% | 8N.0% | 4.N% | 0% | 0.2% | h | : | : |
| l %9tTo | 3.4% | 2N.3% | 1.3% | 0% | 0.2% | 71-1l | : | 2.7% | 2N.N% | 1.5% | 0% | 0.1% | 72-8l | : | : |
| . PH | 0.847 | 0.935 | 0.77N | : | 0.N50 | 5-873 | : | 0.825 | 0.805 | 0.N92 | : | 0.250 | 5-032 | : | 0.875 |
| FLi ctg | 44 | 345 | 9 | 0 | 2 | 355 | : | 31 | 350 | 1N | 0 | 1 | 788 | : | 1248 |
| l %Li ctg | 100% | 99.1% | 57.3% | 0% | 77.N% | 8a-7l | : | 93.9% | 98.9% | 89.5% | 0% | 100% | 80-5l | : | 9N.N% |
| A tIrsoTtue% srdg%ne%Ini oulSnIt% srdg | 0 | 2 | 0 | 0 | 0 | 1 | : | 0 | 2 | 2 | 0 | 0 | 3 | : | 9 |
| l %A tIrsoTtue% srdg%ne%Ini oulSnIt% srdg | 0% | 0.7% | 0% | 0% | 0% | 5-Ul | : | 0% | 0.7% | 10.5% | 0% | 0% | 2-5l | : | 0.N% |
| Bs gug | 0 | 0 | N | 0 | 1 | 0 | : | 2 | 2 | 0 | 0 | 0 | 3 | : | 18 |
| l %Bs gug | 0% | 0% | 43.8% | 0% | 33.3% | 2-8l | : | 7.1% | 0.7% | 0% | 0% | 0% | 2-5l | : | 1.4% |
| BIryrog%n%9Te | 0 | 1 | 0 | 0 | 0 | 2 | : | 0 | 0 | 0 | 0 | 0 | 5 | : | 2 |
| l %BIryrog%n%9Te | 0% | 0.3% | 0% | 0% | 0% | 5-1l | : | 0% | 0% | 0% | 0% | 0% | 5l | : | 0.2% |
| PeceCgvladC | : | : | : | : | : | : | 13 | : | : | : | : | : | : | 21 | |
| % PeceCgvladC | : | : | : | : | : | : | 92.9% | : | : | : | : | : | : | 91.3% | : |
| ULt Bt leCHd AvHCCRalk | : | : | : | : | : | : | 1 | : | : | : | : | : | : | 2 | |
| % ULt Bt leCHd AvHCCRalk | : | : | : | : | : | : | N.1% | : | : | : | : | : | : | 8.N% | : |

6PeceCgvladCadc ULt Bt leCHd AvHCCRalk. sDseCg y Dy Li hg y y Dy Li hgHd vec, TDThvu, SDS:Tuvd

## 23. Genesee and Columbia - TMC

Thu Jul 19, 2018
PM Peak (4PM : 5PM- : ) Oevall Peak r Huv
o ll AlaCCeC(s Li. hgC, o vgLulagec Tvut kCadc n Idi le:SdIgTvut kC, UuCeC, PeceCgMadC, UlLBt leC Hd y Hac, UlLBt leCHd AvHCCRalk-
o ll MHOewedgC
nl D549124, s Ht aglHdD4631014. 2, :753260927, nIge AHceDSgLa, NeR YHvk

PvHOIcec bBDT vLngage TvafflL I aga, nd t3
184 Uakev y Hac,
AHageCOlle, Po, 19620, Sn






## 24. Genesee St SB Off Ramp & Whitesboro St - TMC

Thu Jul 19, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 548860, Location: 43.104027, -75.22639, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

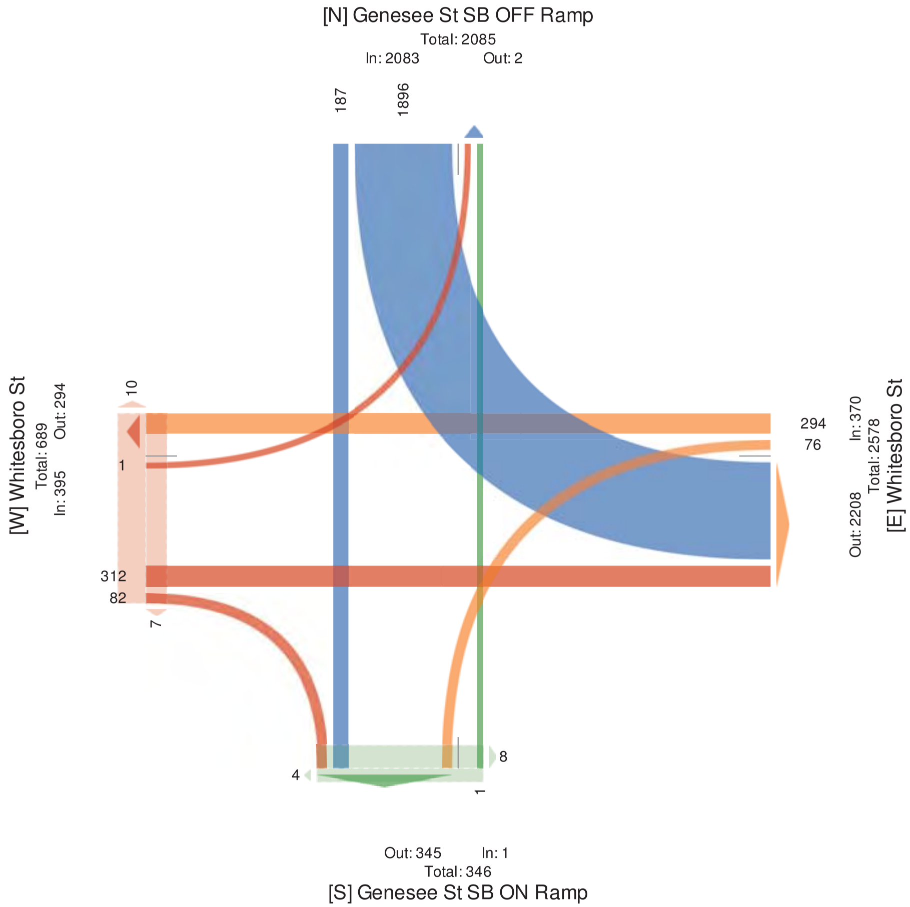
| Leg | Whitesboro St | | | | | | Whitesboro St | | | | | | Genesee St SB ON Ramp | | | | | | Genesee St SB OFF Ramp | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Eastbound | | | | | | Westbound | | | | | | Northbound | | | | | | Southbound | | | | | | |
| Time | L | T | R | U | App | Ped* | L | T | R | U | App | Ped* | L | T | R | U | App | Ped* | L | T | R | U | App | Ped* | Int |
| 2018-07-19 7:00AM | 0 | 11 | 2 | 0 | **16** | 1 | 2 | 6 | 0 | 0 | **2** | 0 | 0 | 0 | 0 | 0 | **8** | 1 | 84 | 10 | 0 | 0 | **54** | 0 | **113** |
| 7:15AM | 0 | 17 | 3 | 0 | **98** | 1 | 7 | 9 | 0 | 0 | **17** | 0 | 0 | 0 | 0 | 0 | **8** | 1 | 86 | 13 | 0 | 0 | **55** | 0 | **163** |
| 7:30AM | 0 | 17 | 5 | 0 | **99** | 0 | 3 | 9 | 0 | 0 | **19** | 0 | 0 | 0 | 0 | 0 | **8** | 0 | 127 | 13 | 0 | 0 | **148** | 0 | **104** |
| 7:45AM | 1 | 27 | 9 | 0 | **60** | 0 | 5 | 27 | 0 | 0 | **69** | 0 | 0 | 0 | 0 | 0 | **8** | 1 | 145 | 15 | 0 | 0 | **178** | 0 | **995** |
| Hourly Total | 1 | 72 | 19 | 0 | **59** | 2 | 17 | 51 | 0 | 0 | **72** | 0 | 0 | 0 | 0 | 0 | **8** | 3 | 442 | 51 | 0 | 0 | **456** | 0 | **736** |
| 8:00AM | 0 | 13 | 5 | 0 | **12** | 1 | 7 | 17 | 0 | 0 | **94** | 0 | 0 | 1 | 0 | 0 | **1** | 0 | 107 | 11 | 0 | 0 | **112** | 0 | **171** |
| 8:15AM | 0 | 26 | 4 | 0 | **68** | 1 | 4 | 14 | 0 | 0 | **12** | 0 | 0 | 0 | 0 | 0 | **8** | 0 | 135 | 10 | 0 | 0 | **143** | 0 | **156** |
| 8:30AM | 0 | 11 | 11 | 0 | **99** | 0 | 10 | 17 | 0 | 0 | **90** | 0 | 0 | 0 | 0 | 0 | **8** | 0 | 125 | 16 | 0 | 0 | **141** | 0 | **158** |
| 8:45AM | 0 | 18 | 6 | 0 | **94** | 0 | 7 | 12 | 0 | 0 | **15** | 0 | 0 | 0 | 0 | 0 | **8** | 0 | 104 | 21 | 0 | 0 | **193** | 0 | **172** |
| Hourly Total | 0 | 68 | 26 | 0 | **54** | 2 | 28 | 60 | 0 | 0 | **22** | 0 | 0 | 1 | 0 | 0 | **1** | 0 | 471 | 58 | 0 | 0 | **395** | 0 | **019** |
| 9:00AM | 0 | 0 | 0 | 0 | **8** | 0 | 0 | 0 | 0 | 0 | **8** | 0 | 0 | 0 | 0 | 0 | **8** | 0 | 2 | 0 | 0 | 0 | **9** | 0 | **9** |
| Hourly Total | 0 | 0 | 0 | 0 | **8** | 0 | 0 | 0 | 0 | 0 | **8** | 0 | 0 | 0 | 0 | 0 | **8** | 0 | 2 | 0 | 0 | 0 | **9** | 0 | **9** |
| 4:00PM | 0 | 32 | 2 | 0 | **64** | 2 | 3 | 28 | 0 | 0 | **61** | 0 | 0 | 0 | 0 | 0 | **8** | 0 | 134 | 11 | 0 | 0 | **143** | 0 | **918** |
| 4:15PM | 0 | 21 | 4 | 0 | **93** | 2 | 4 | 28 | 0 | 0 | **69** | 0 | 0 | 0 | 0 | 0 | **8** | 3 | 124 | 9 | 0 | 0 | **166** | 0 | **158** |
| 4:30PM | 0 | 38 | 5 | 0 | **46** | 3 | 5 | 32 | 0 | 0 | **60** | 0 | 0 | 0 | 0 | 0 | **8** | 0 | 118 | 12 | 0 | 0 | **168** | 0 | **918** |
| 4:45PM | 0 | 17 | 3 | 0 | **98** | 3 | 2 | 14 | 0 | 0 | **17** | 0 | 0 | 0 | 0 | 0 | **8** | 2 | 131 | 8 | 0 | 0 | **165** | 0 | **103** |
| Hourly Total | 0 | 108 | 14 | 0 | **199** | 10 | 14 | 102 | 0 | 0 | **117** | 0 | 0 | 0 | 0 | 0 | **8** | 5 | 507 | 40 | 0 | 0 | **340** | 0 | **023** |
| 5:00PM | 0 | 26 | 5 | 0 | **61** | 0 | 9 | 29 | 0 | 0 | **62** | 0 | 0 | 0 | 0 | 0 | **8** | 1 | 139 | 9 | 0 | 0 | **142** | 0 | **910** |
| 5:15PM | 0 | 15 | 5 | 0 | **98** | 2 | 3 | 15 | 0 | 0 | **12** | 0 | 0 | 0 | 0 | 0 | **8** | 2 | 130 | 8 | 0 | 0 | **162** | 0 | **107** |
| 5:30PM | 0 | 10 | 9 | 0 | **15** | 1 | 0 | 17 | 0 | 0 | **10** | 0 | 0 | 0 | 0 | 0 | **8** | 0 | 122 | 8 | 0 | 0 | **168** | 0 | **177** |
| 5:45PM | 0 | 13 | 4 | 0 | **10** | 0 | 5 | 20 | 0 | 0 | **93** | 0 | 0 | 0 | 0 | 0 | **8** | 1 | 83 | 13 | 0 | 0 | **57** | 0 | **162** |
| Hourly Total | 0 | 64 | 23 | 0 | **20** | 3 | 17 | 81 | 0 | 0 | **52** | 0 | 0 | 0 | 0 | 0 | **8** | 4 | 474 | 38 | 0 | 0 | **319** | 0 | **750** |
| 6:00PM | 0 | 0 | 0 | 0 | **8** | 0 | 0 | 0 | 0 | 0 | **8** | 0 | 0 | 0 | 0 | 0 | **8** | 0 | 0 | 0 | 0 | 0 | **8** | 0 | **8** |
| Hourly Total | 0 | 0 | 0 | 0 | **8** | 0 | 0 | 0 | 0 | 0 | **8** | 0 | 0 | 0 | 0 | 0 | **8** | 0 | 0 | 0 | 0 | 0 | **8** | 0 | **8** |
| **Total** | 1 | 312 | 82 | 0 | **653** | 17 | 76 | 294 | 0 | 0 | **608** | 0 | 0 | 1 | 0 | 0 | **1** | 12 | 1896 | 187 | 0 | 0 | **9826** | 0 | **9245** |
| **% Approach** | 0.3% | 79.0% | 20.8% | 0% | - | - | 20.5% | 79.5% | 0% | 0% | - | - | 0% | 100% | 0% | 0% | - | - | 91.0% | 9.0% | 0% | 0% | - | - | - |
| **% Total** | 0% | 11.0% | 2.9% | 0% | **16.5%** | - | 2.7% | 10.3% | 0% | 0% | **16.8%** | - | 0% | 0% | 0% | 0% | **8%** | - | 66.5% | 6.6% | 0% | 0% | **06.1%** | - | - |
| **Lights** | 1 | 297 | 82 | 0 | **628** | - | 74 | 284 | 0 | 0 | **632** | - | 0 | 0 | 0 | 0 | **8** | - | 1790 | 171 | 0 | 0 | **1571** | - | 2699 |
| **% Lights** | 100% | 95.2% | 100% | 0% | **57.9%** | - | 97.4% | 96.6% | 0% | 0% | **57.2%** | - | 0% | 0% | 0% | 0% | **8%** | - | 94.4% | 91.4% | 0% | 0% | **54.1%** | - | 94.7% |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 14 | 0 | 0 | **14** | - | 2 | 7 | 0 | 0 | **5** | - | 0 | 0 | 0 | 0 | **8** | - | 90 | 4 | 0 | 0 | **54** | - | 117 |
| **% Articulated Trucks and Single-Unit Trucks** | 0% | 4.5% | 0% | 0% | **6.3%** | - | 2.6% | 2.4% | 0% | 0% | **9.4%** | - | 0% | 0% | 0% | 0% | **8%** | - | 4.7% | 2.1% | 0% | 0% | **4.3%** | - | 4.1% |
| **Buses** | 0 | 1 | 0 | 0 | **1** | - | 0 | 3 | 0 | 0 | **6** | - | 0 | 0 | 0 | 0 | **8** | - | 15 | 9 | 0 | 0 | **94** | - | 28 |
| **% Buses** | 0% | 0.3% | 0% | 0% | **8.6%** | - | 0% | 1.0% | 0% | 0% | **8.2%** | - | 0% | 0% | 0% | 0% | **8%** | - | 0.8% | 4.8% | 0% | 0% | **1.9%** | - | 1.0% |
| **Bicycles on Road** | 0 | 0 | 0 | 0 | **8** | - | 0 | 0 | 0 | 0 | **8** | - | 0 | 1 | 0 | 0 | **1** | - | 1 | 3 | 0 | 0 | **4** | - | 5 |
| **% Bicycles on Road** | 0% | 0% | 0% | 0% | **8%** | - | 0% | 0% | 0% | 0% | **8%** | - | 0% | 100% | 0% | 0% | **188%** | - | 0.1% | 1.6% | 0% | 0% | **8.9%** | - | 0.2% |
| Pedestrians | - | - | - | - | - | 13 | - | - | - | - | - | 0 | - | - | - | - | - | 10 | - | - | - | - | - | 0 | |
| % Pedestrians | - | - | - | - | - | 76.5% | - | - | - | - | - | - | - | - | - | - | - | 83.3% | - | - | - | - | - | - | - |
| Bicycles on Crosswalk | - | - | - | - | - | 4 | - | - | - | - | - | 0 | - | - | - | - | - | 2 | - | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | - | 23.5% | - | - | - | - | - | - | - | - | - | - | - | 16.7% | - | - | - | - | - | - | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

## 24. Genesee St SB Off Ramp & Whitesboro St - TMC

Thu Jul 19, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 548860, Location: 43.104027, -75.22639, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US






## 24. Genesee St SB Off Ramp & Whitesboro St - TMC

Thu Jul 19, 2018
AM Peak (7:45AM - 8:45AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 548860, Location: 43.104027, -75.22639, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

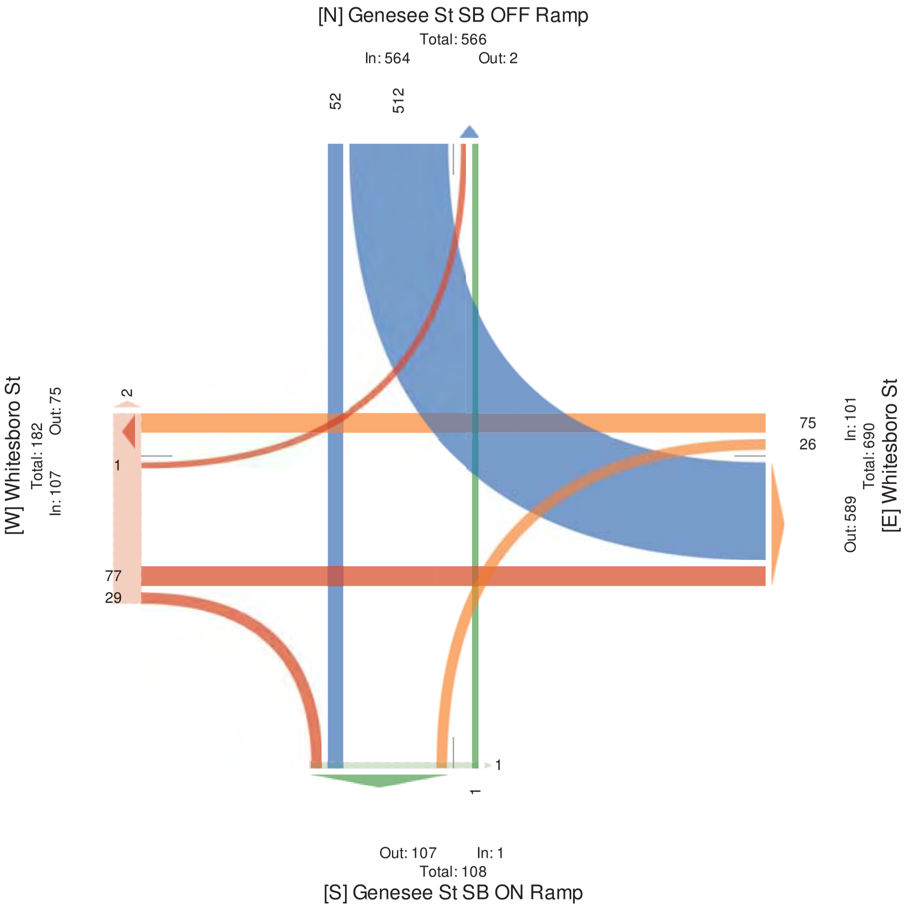
| Leg<br>Direction | Whitesboro St<br>Eastbound | | | | | | Whitesboro St<br>Westbound | | | | | | Genesee St SB ON Ramp<br>Northbound | | | | | | Genesee St SB OFF Ramp<br>Southbound | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | L | T | R | U | App | Ped* | L | T | R | U | App | Ped* | L | T | R | U | App | Ped* | L | T | R | U | App | Ped* | Int |
| 2018-07-19 7:45AM | 1 | 27 | 9 | 0 | **25** | 0 | 5 | 27 | 0 | 0 | **21** | 0 | 0 | 0 | 0 | 0 | **7** | 1 | 145 | 15 | 0 | 0 | **487** | 0 | **110** |
| 8:00AM | 0 | 13 | 5 | 0 | **43** | 1 | 7 | 17 | 0 | 0 | **16** | 0 | 0 | 1 | 0 | 0 | **4** | 0 | 107 | 11 | 0 | 0 | **443** | 0 | **484** |
| 8:15AM | 0 | 26 | 4 | 0 | **27** | 1 | 4 | 14 | 0 | 0 | **43** | 0 | 0 | 0 | 0 | 0 | **7** | 0 | 135 | 10 | 0 | 0 | **469** | 0 | **402** |
| 8:30AM | 0 | 11 | 11 | 0 | **11** | 0 | 10 | 17 | 0 | 0 | **15** | 0 | 0 | 0 | 0 | 0 | **7** | 0 | 125 | 16 | 0 | 0 | **464** | 0 | **407** |
| **Total** | 1 | 77 | 29 | 0 | **475** | 2 | 26 | 75 | 0 | 0 | **474** | 0 | 0 | 1 | 0 | 0 | **4** | 1 | 512 | 52 | 0 | 0 | **986** | 0 | **552** |
| **% Approach** | 0.9% | 72.0% | 27.1% | 0% | - | - | 25.7% | 74.3% | 0% | 0% | - | - | 0% | 100% | 0% | 0% | - | - | 90.8% | 9.2% | 0% | 0% | - | - | - |
| **% Total** | 0.1% | 10.0% | 3.8% | 0% | **42.3%** | - | 3.4% | 9.7% | 0% | 0% | **42.4%** | - | 0% | 0.1% | 0% | 0% | **7.4%** | - | 66.2% | 6.7% | 0% | 0% | **52.7%** | - | - |
| **PHF** | 0.250 | 0.713 | 0.659 | - | **7.512** | - | 0.650 | 0.694 | - | - | **7.530** | - | - | 0.250 | - | - | **7.197** | - | 0.883 | 0.813 | - | - | **7.334** | - | 0.844 |
| **Lights** | 1 | 75 | 29 | 0 | **479** | - | 26 | 70 | 0 | 0 | **08** | - | 0 | 0 | 0 | 0 | **7** | - | 479 | 48 | 0 | 0 | **915** | - | 728 |
| **% Lights** | 100% | 97.4% | 100% | 0% | **03.4%** | - | 100% | 93.3% | 0% | 0% | **09.7%** | - | 0% | 0% | 0% | 0% | **7%** | - | 93.6% | 92.3% | 0% | 0% | **02.6%** | - | 94.2% |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 2 | 0 | 0 | **1** | - | 0 | 3 | 0 | 0 | **2** | - | 0 | 0 | 0 | 0 | **7** | - | 27 | 2 | 0 | 0 | **10** | - | 34 |
| **% Articulated Trucks and Single-Unit Trucks** | 0% | 2.6% | 0% | 0% | **4.0%** | - | 0% | 4.0% | 0% | 0% | **2.7%** | - | 0% | 0% | 0% | 0% | **7%** | - | 5.3% | 3.8% | 0% | 0% | **9.4%** | - | 4.4% |
| **Buses** | 0 | 0 | 0 | 0 | **7** | - | 0 | 2 | 0 | 0 | **1** | - | 0 | 0 | 0 | 0 | **7** | - | 6 | 2 | 0 | 0 | **3** | - | 10 |
| **% Buses** | 0% | 0% | 0% | 0% | **7%** | - | 0% | 2.7% | 0% | 0% | **1.7%** | - | 0% | 0% | 0% | 0% | **7%** | - | 1.2% | 3.8% | 0% | 0% | **4.6%** | - | 1.3% |
| **Bicycles on Road** | 0 | 0 | 0 | 0 | **7** | - | 0 | 0 | 0 | 0 | **7** | - | 0 | 1 | 0 | 0 | **4** | - | 0 | 0 | 0 | 0 | **7** | - | 1 |
| **% Bicycles on Road** | 0% | 0% | 0% | 0% | **7%** | - | 0% | 0% | 0% | 0% | **7%** | - | 0% | 100% | 0% | 0% | **477%** | - | 0% | 0% | 0% | 0% | **7%** | - | 0.1% |
| Pedestrians | - | - | - | - | - | 1 | - | - | - | - | - | 0 | - | - | - | - | - | 1 | - | - | - | - | - | 0 | |
| % Pedestrians | - | - | - | - | - | 50.0% | - | - | - | - | - | - | - | - | - | - | - | 100% | - | - | - | - | - | - | - |
| Bicycles on Crosswalk | - | - | - | - | - | 1 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | - | 50.0% | - | - | - | - | - | - | - | - | - | - | - | 0% | - | - | - | - | - | - | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

## 24. Genesee St SB Off Ramp & Whitesboro St - TMC

Thu Jul 19, 2018
AM Peak (7:45AM - 8:45AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 548860, Location: 43.104027, -75.22639, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US






## 24. Genesee St SB Off Ramp & Whitesboro St - TMC

Thu Jul 19, 2018
AMPeak (a7: 45(- ) C(- s
Lll i l7ggag 4t rc hdg, LPdeul7dak TPue: g 7nk Smc la)UnrdTPue: g, Bugag, (akagdPr7ng, Breyelag Mh o M7k, Breyelag Mh i PMggR7l: s
Lll - Mwav andg
ml DC58860, t Me7dMnD53.10502N, )NC.22639, Srda i MkaDUde7, YaR b MP.

(PMwkak f yDTPr)Sd7da TP7WWe I 7d7, me.
185 B7: aPo M7k,
i M7dagwdla, (L, 19320, US

| t ac<br>I rPaedMh | Ghrdagf MPMSd<br>E7gdf Mnk | | | | | | Ghrdagf MPMSd<br>Gagdf Mnk | | | | | | Oanagaa SdSB p Y o7v F<br>YMPdhf Mnk | | | | | | Oanagaa SdSB p AA o7v F<br>SMudhf Mnk | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Trv a | t | T | o | U | App | (ak* | t | T | o | U | App | (ak* | t | T | o | U | App | (ak* | t | T | o | U | App | (ak* | Int |
| 2018)0N)19 5D0(- | 0 | 32 | 2 | 0 | 25 | 2 | 3 | 28 | 0 | 0 | 21 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 135 | 11 | 0 | 0 | 154 | 0 | 817 |
| 5DC(- | 0 | 21 | 5 | 0 | 84 | 2 | 5 | 28 | 0 | 0 | 28 | 0 | 0 | 0 | 0 | 0 | 7 | 3 | 125 | 9 | 0 | 0 | 122 | 0 | 107 |
| 5D30(- | 0 | 38 | C | 0 | 52 | 3 | C | 32 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 118 | 12 | 0 | 0 | 127 | 0 | 817 |
| 5D5C(- | 0 | 1N | 3 | 0 | 87 | 3 | 2 | 15 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 7 | 2 | 131 | 8 | 0 | 0 | 120 | 0 | 134 |
| 9 ıtoa | 0 | 108 | 15 | 0 | 188 | 10 | 15 | 102 | 0 | 0 | 116 | 0 | 0 | 0 | 0 | 0 | 7 | C | C0N | 50 | 0 | 0 | 453 | 0 | 314 |
| % ApprToch | 0% | 88.C% | 11.C% | 0% | - | ) | 12.1% | 8N.9% | 0% | 0% | - | ) | 0% | 0% | 0% | 0% | - | ) | 92.N% | N.3% | 0% | 0% | - | ) | ) |
| % 9 Ttoa | 0% | 13.8% | 1.8% | 0% | 14.4% | ) | 1.8% | 13.0% | 0% | 0% | 15.l % | ) | 0% | 0% | 0% | 0% | 7% | ) | 65.6% | C.1% | 0% | 0% | 60.3% | ) | ) |
| PHF | ) | 0.N11 | 0.N00 | ) | 7.370 | ) | 0.N00 | 0.N9N | ) | ) | 7.3l 5 | ) | ) | ) | ) | ) | - | ) | 0.956 | 0.833 | ) | ) | 7.052 | ) | 0.93C |
| Lights | 0 | 10C | 15 | 0 | 110 | ) | 13 | 99 | 0 | 0 | 118 | ) | 0 | 0 | 0 | 0 | 7 | ) | 586 | 3N | 0 | 0 | 482 | ) | NC5 |
| % Lights | 0% | 9N.2% | 100% | 0% | 03.4% | ) | 92.9% | 9N.1% | 0% | 0% | 06.6% | ) | 0% | 0% | 0% | 0% | - | ) | 9C.9% | 92.C% | 0% | 0% | 04.6% | ) | 96.1% |
| Articuaoted 9 rucks ond Singæ-Unit 9 rucks | 0 | 3 | 0 | 0 | 2 | ) | 1 | 2 | 0 | 0 | 2 | ) | 0 | 0 | 0 | 0 | 7 | ) | 1N | 0 | 0 | 0 | 13 | ) | 23 |
| % Articuaoted 9 rucks ond Singæ-Unit 9 rucks | 0% | 2.8% | 0% | 0% | 8.4% | ) | N.1% | 2.0% | 0% | 0% | 8.6% | ) | 0% | 0% | 0% | 0% | - | ) | 3.5% | 0% | 0% | 0% | 2.1% | ) | 2.9% |
| Buses | 0 | 0 | 0 | 0 | 7 | ) | 0 | 1 | 0 | 0 | 1 | ) | 0 | 0 | 0 | 0 | 7 | ) | 5 | 2 | 0 | 0 | 6 | ) | N |
| % Buses | 0% | 0% | 0% | 0% | 7% | ) | 0% | 1.0% | 0% | 0% | 7.0% | ) | 0% | 0% | 0% | 0% | - | ) | 0.8% | C.0% | 0% | 0% | 1.1% | ) | 0.9% |
| Bicycæs Tn RTod | 0 | 0 | 0 | 0 | 7 | ) | 0 | 0 | 0 | 0 | 7 | ) | 0 | 0 | 0 | 0 | 7 | ) | 0 | 1 | 0 | 0 | 1 | ) | 1 |
| % Bicycæs Tn RTod | 0% | 0% | 0% | 0% | 7% | ) | 0% | 0% | 0% | 0% | 7% | ) | 0% | 0% | 0% | 0% | - | ) | 0% | 2.C% | 0% | 0% | 7.8% | ) | 0.1% |
| (akagdPr7ng | ) | ) | ) | ) | ) | 9 | ) | ) | ) | ) | ) | 0 | ) | ) | ) | ) | ) | C | ) | ) | ) | ) | ) | 0 | |
| % (akagdPr7ng | ) | ) | ) | ) | ) | 90.0% | ) | ) | ) | ) | ) | ) | ) | ) | ) | ) | ) | 100% | ) | ) | ) | ) | ) | ) | ) |
| Breyelag Mh i PMggR7l: | ) | ) | ) | ) | ) | 1 | ) | ) | ) | ) | ) | 0 | ) | ) | ) | ) | ) | 0 | ) | ) | ) | ) | ) | 0 | |
| % Breyelag Mh i PMggR7l: | ) | ) | ) | ) | ) | 10.0% | ) | ) | ) | ) | ) | ) | ) | ) | ) | ) | ) | 0% | ) | ) | ) | ) | ) | ) | ) |

*(akagdPr7ng 7nk Breyelag Mh i PMggR7l: . t Dr aW( o Dorchd TDThPu, UDU)TuPh

**24. Genesee St SB Off Ramp & Whitesboro St - TMC**

Thu Jul 19, 2018

FLengt ( g7AM( 4 P6( 4 )

Cll a l7ssgs Mrc hds, Cedmul7dgt TeunAs 7kt Srkc lgRUkrdTeunAs, Busgs, ( gt gsder7ks, Bmynlgs Lk o L7t , Bmynlgs Lk a eLssR7lA)

Cll 4 Lwgv gkds

ml D6-88: 0, i Ln7dLkD-5310-02. , P. 6322: 59, Srdg a Lt gDUdn7, NgR YLeA

( eLwt gt byDTerPSd7dg Te7ffm I 7d7, mkn3

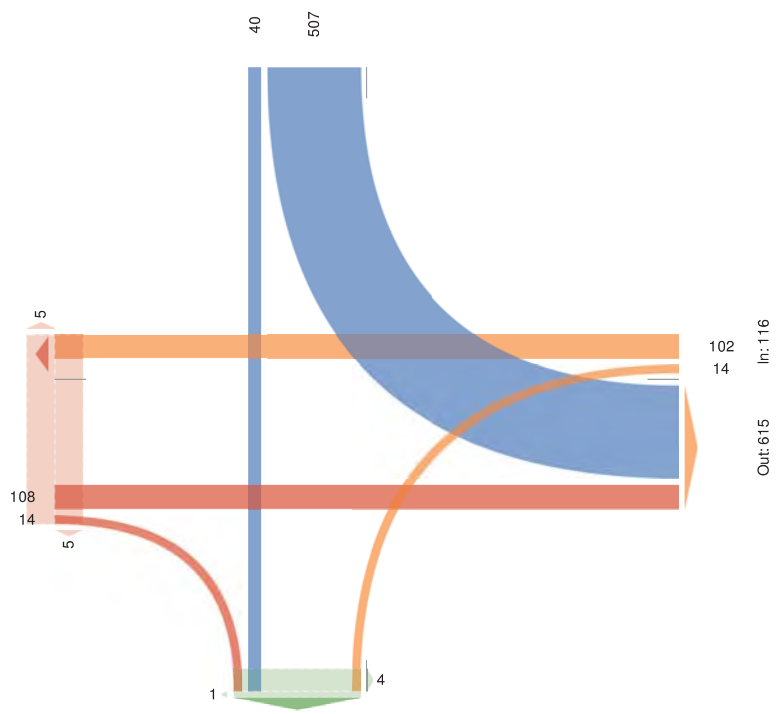
18- B7Age o L7t ,

a L7dgswdlg, ( C, 19520, US

[N] Genesee St SB OFF Ramp

Total: 547

In: 547 Out: 0




[W] Whitesboro St

Total: 224

In: 122 Out: 102

[E] Whitesboro St

Total: 731

In: 116 Out: 615

Out: 68 In: 0

Total: 68

[S] Genesee St SB ON Ramp



**24. Genesee St SB Off Ramp & Whitesboro St - TMC**

Thu Jul 19, 2018

FL Feng t( 7l AFL MA7l AFL - M4 Pe6nll Feng ) Cu6

a lls lniiei trcdhki , a 6kcSulnkeUT6uSgi nBUycBdleMBdkT6uSgi , Ruiei , FeUeik6cnBi , RcSwSlei CB v CnU, RcSwSlei CBs 6Ciimnlg-

a ll L CPeI eBki

D 7A( 8850, r CSnkcCB7( 3.10( 02N, MA.22539, ydke s CUe7o kcSn, Yemb C6g

F6CPdUeUf w7T6dyMknke T6nWS : nkn, DBS.

18( Rnge6v CnU,

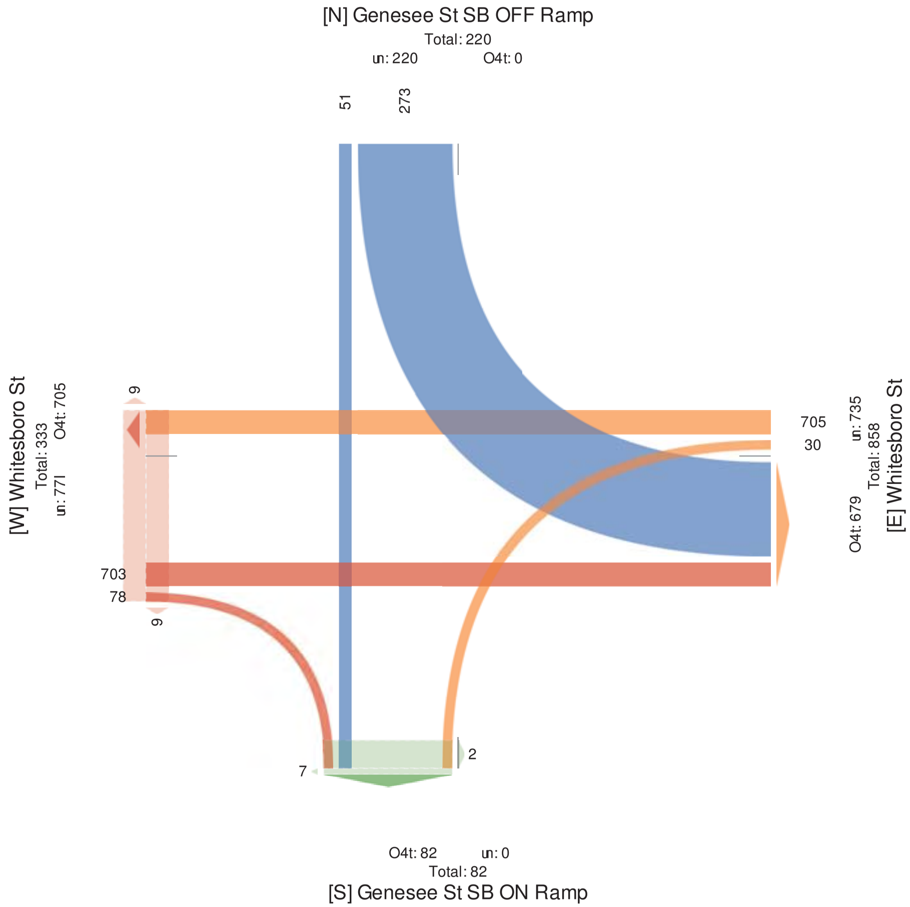
s CnkeiPdle, Fa , 19320, o y

| r ed : c6e SkCB | Ghdeif C6C yk *nikf CuBU | | | | | | Ghdeif C6C yk Geikf CuBU | | | | | | OeBeiee ykyR 4 Y vnI p YC6khf CuBU | | | | | | OeBeiee ykyR 4 EE vnI p yCukhf CuBU | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tdl e | r | T | v | o | **App** | Fe UH | r | T | v | o | **App** | Fe UH | r | T | v | o | **App** | Fe UH | r | T | v | o | **App** | Fe UH | **Int** |
| 2018MNM9 ( 7l AFL | 0 | 21 | ( | 0 | **25** | 2 | ( | 28 | 0 | 0 | **12** | 0 | 0 | 0 | 0 | 0 | **7** | 3 | 12( | 9 | 0 | 0 | **411** | 0 | **487** |
| ( 730FL | 0 | 38 | A | 0 | **01** | 3 | A | 32 | 0 | 0 | **13** | 0 | 0 | 0 | 0 | 0 | **7** | 0 | 118 | 12 | 0 | 0 | **417** | 0 | **247** |
| ( 7( AFL | 0 | 1N | 3 | 0 | **27** | 3 | 2 | 1( | 0 | 0 | **46** | 0 | 0 | 0 | 0 | 0 | **7** | 2 | 131 | 8 | 0 | 0 | **418** | 0 | **435** |
| A700FL | 0 | 25 | A | 0 | **14** | 0 | 9 | 29 | 0 | 0 | **19** | 0 | 0 | 0 | 0 | 0 | **7** | 1 | 139 | 9 | 0 | 0 | **409** | 0 | **243** |
| **Total** | 0 | 102 | 1N | 0 | **448** | 8 | 20 | 103 | 0 | 0 | **421** | 0 | 0 | 0 | 0 | 0 | **7** | 5 | A12 | 38 | 0 | 0 | **557** | 0 | **382** |
| **% Approach** | 0% | 8A.N% | 1( .3% | 0% | - | M | 15.3% | 83.N% | 0% | 0% | - | M | 0% | 0% | 0% | 0% | - | M | 93.1% | 5.9% | 0% | 0% | - | M | M |
| **% Total** | 0% | 12.9% | 2.1% | 0% | **45.7%** | M | 2.A% | 13.0% | 0% | 0% | **45.5%** | M | 0% | 0% | 0% | 0% | **7%** | M | 5( .5% | ( .8% | 0% | 0% | **68.0%** | M | M |
| **PHF** | M | 0.5N1 | 0.8A0 | M | **7.682** | M | 0.AA5 | 0.80A | M | M | **7.978** | M | M | M | M | M | - | M | 0.921 | 0.N92 | M | M | **7.828** | M | 0.912 |
| **Lights** | 0 | 99 | 1N | 0 | **446** | M | 20 | 101 | 0 | 0 | **424** | M | 0 | 0 | 0 | 0 | **7** | M | ( 9( | 3A | 0 | 0 | **528** | M | N55 |
| **% Lights** | 0% | 9N.1% | 100% | 0% | **83.5%** | M | 100% | 98.1% | 0% | 0% | **89.0%** | M | 0% | 0% | 0% | 0% | - | M | 95.A% | 92.1% | 0% | 0% | **86.2%** | M | 95.N% |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 3 | 0 | 0 | **1** | M | 0 | 2 | 0 | 0 | **2** | M | 0 | 0 | 0 | 0 | **7** | M | 1A | 0 | 0 | 0 | **45** | M | 20 |
| **% Articulated Trucks and Single-Unit Trucks** | 0% | 2.9% | 0% | 0% | **2.5%** | M | 0% | 1.9% | 0% | 0% | **4.6%** | M | 0% | 0% | 0% | 0% | - | M | 2.9% | 0% | 0% | 0% | **2.3%** | M | 2.A% |
| **Buses** | 0 | 0 | 0 | 0 | **7** | M | 0 | 0 | 0 | 0 | **7** | M | 0 | 0 | 0 | 0 | **7** | M | 3 | 2 | 0 | 0 | **5** | M | A |
| **% Buses** | 0% | 0% | 0% | 0% | **7%** | M | 0% | 0% | 0% | 0% | **7%** | M | 0% | 0% | 0% | 0% | - | M | 0.5% | A.3% | 0% | 0% | **7.8%** | M | 0.5% |
| **Bicycles on Road** | 0 | 0 | 0 | 0 | **7** | M | 0 | 0 | 0 | 0 | **7** | M | 0 | 0 | 0 | 0 | **7** | M | 0 | 1 | 0 | 0 | **4** | M | 1 |
| **% Bicycles on Road** | 0% | 0% | 0% | 0% | **7%** | M | 0% | 0% | 0% | 0% | **7%** | M | 0% | 0% | 0% | 0% | - | M | 0% | 2.5% | 0% | 0% | **7.2%** | M | 0.1% |
| FeUeik6cnBi | M | M | M | M | M | 8 | M | M | M | M | M | 0 | M | M | M | M | M | A | M | M | M | M | M | 0 | |
| % FeUeik6cnBi | M | M | M | M | M | 100% | M | M | M | M | M | M | M | M | M | M | M | 83.3% | M | M | M | M | M | M | M |
| RcSwSlei CBs 6Ciimnlg | M | M | M | M | M | 0 | M | M | M | M | M | 0 | M | M | M | M | M | 1 | M | M | M | M | M | 0 | |
| % RcSwSlei CBs 6Ciimnlg | M | M | M | M | M | 0% | M | M | M | M | M | M | M | M | M | M | M | 15.N% | M | M | M | M | M | M | M |

[H] FeUeik6cnBi nBURcSwSlei CBs 6Ciimnlg. r 7r eW, v 7v cdhk, T 7Th6u, o 7o MTu6B

**24. Genesee St SB Off Ramp & Whitesboro St - TMC**
Thu Jul 19, 2018
PM Peak (4:15PM - 5:15PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 548860, Location: 43.104027, -75.22639, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US






**25. Genesee St. and Blandina - TMC**
Wed Jdul 18, 21 0
FduLngt he (7AM-1AM894M-P4M6
Au) uCaana (Lst eha8Aihrdu Cnc WidrTa Cgc ksgt un-SgshWidrTa8Udana8Udana84ncnahisCga8 UsrBruna yg o yCc8UsrBruna yg ) iyaaRCuT6
AuMywnv ngha
mI D: 911 , : 8LyrChsygD953 227918-7: 3, 5, 5: : 8kshn ) ycnDShsrC8. nR NyiT

4iywscnc YBDWis-khCm WiCbsr
I ChC8ngr3
1 09 UCTni oyCc8
) yCnawsun84A81 15, 28Sk

| Lnt<br>I sinrhsyg | f Caesgt hyg LCgn<br>ECahYydgc | | | | | | | UuCgcsgC klB<br>f nahYydgc | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Wsv n | L | W | o | S | oo | **App** | 4nc* | L | W | o | S | oo | **App** | 4nc* |
| , 210-27-11 7D22 AM | 5 | 2 | 2 | 2 | 2 | **1** | 5 | 2 | 2 | 2 | 2 | 2 | **5** | 1 |
| 7D: AM | , | 1 | 1 | 2 | 1 | **7** | 1 | 2 | 2 | 2 | 2 | 2 | **5** | 9 |
| 7D52 AM | : | 2 | 5 | 2 | , | **25** | 5 | 2 | 2 | 2 | 2 | 2 | **5** | 1 |
| 7D9: AM | : | 2 | 1 | 2 | 2 | **0** | 5 | 2 | 2 | 2 | 2 | 2 | **5** | , |
| HydiuBWyhCu | 1: | 1 | : | 2 | 5 | **43** | 12 | 2 | 2 | 2 | 2 | 2 | **5** | 0 |
| 0D22 AM | 1 | 1 | , | 2 | 2 | **3** | , | 2 | 2 | 2 | 2 | 2 | **5** | , |
| 0D: AM | 9 | : | 2 | 2 | 2 | **9** | 1 | 2 | 2 | 2 | 2 | 2 | **5** | 9 |
| 0D52 AM | P | 2 | 2 | 2 | 2 | **0** | 5 | 2 | 2 | 2 | 2 | 2 | **5** | 7 |
| 0D9: AM | 1 | 2 | , | 2 | 2 | **1** | : | 2 | 2 | 2 | 2 | 2 | **5** | : |
| HydiuBWyhCu | 1, | P | 9 | 2 | 2 | **44** | 11 | 2 | 2 | 2 | 2 | 2 | **5** | 10 |
| 1D22 AM | 2 | 2 | 2 | 2 | 2 | **5** | 2 | 2 | 2 | 2 | 2 | 2 | **5** | 2 |
| HydiuBWyhCu | 2 | 2 | 2 | 2 | 2 | **5** | 2 | 2 | 2 | 2 | 2 | 2 | **5** | 2 |
| 9D224M | 11 | 1 | 5 | 2 | 2 | **27** | : | 2 | 2 | 2 | 2 | 2 | **5** | 0 |
| 9D: 4M | 1 | 2 | 2 | 2 | 2 | **9** | : | 2 | 2 | 2 | 2 | 2 | **5** | 5 |
| 9D524M | 7 | 5 | 1 | 2 | 2 | **22** | 1, | 2 | 2 | 2 | 2 | 2 | **5** | 15 |
| 9D9: 4M | 5 | 1 | , | 2 | 1 | **8** | 5 | 2 | 2 | 2 | 2 | 2 | **5** | 1 |
| HydiuBWyhCu | 52 | : | P | 2 | 1 | **34** | , : | 2 | 2 | 2 | 2 | 2 | **5** | , : |
| : D224M | 11 | 9 | 9 | 2 | 2 | **29** | P | 2 | 2 | 2 | 2 | 2 | **5** | 9 |
| : D: 4M | 5 | 1 | 2 | 2 | 2 | **3** | P | 2 | 2 | 2 | 2 | 2 | **5** | 0 |
| : D524M | 1 | 2 | , | 2 | 2 | **1** | 0 | 2 | 2 | 2 | 2 | 2 | **5** | 1 |
| : D9: 4M | : | 1 | , | 2 | 2 | **6** | 7 | 2 | 2 | 2 | 2 | 2 | **5** | 7 |
| HydiuBWyhCu | , 2 | P | 0 | 2 | 2 | **13** | , 7 | 2 | 2 | 2 | 2 | 2 | **5** | , 2 |
| **Total** | 77 | 10 | , 5 | 2 | 9 | **244** | 75 | 2 | 2 | 2 | 2 | 2 | **5** | 71 |
| **% Approach** | P531% | 1930% | 1031% | 2% | 535% | **-** | - | 2% | 2% | 2% | 2% | 2% | **-** | - |
| **% Total** | , 30% | 237% | 230% | 2% | 231% | **3.3%** | - | 2% | 2% | 2% | 2% | 2% | **5%** | - |
| **Lights** | 7P | 10 | , 5 | 2 | 9 | **242** | - | 2 | 2 | 2 | 2 | 2 | **5** | - |
| **% Lights** | 1037% | 122% | 122% | 2% | 122% | **99.4%** | - | 2% | 2% | 2% | 2% | 2% | **-** | - |
| **Articulated Trucks and Single-Unit Trucks** | 1 | 2 | 2 | 2 | 2 | **2** | - | 2 | 2 | 2 | 2 | 2 | **5** | - |
| **% Articulated Trucks and Single-Unit Trucks** | 135% | 2% | 2% | 2% | 2% | **5.6%** | - | 2% | 2% | 2% | 2% | 2% | **-** | - |
| **Buses** | 2 | 2 | 2 | 2 | 2 | **5** | - | 2 | 2 | 2 | 2 | 2 | **5** | - |
| **% Buses** | 2% | 2% | 2% | 2% | 2% | **5%** | - | 2% | 2% | 2% | 2% | 2% | **-** | - |
| **Bicycles on Road** | 2 | 2 | 2 | 2 | 2 | **5** | - | 2 | 2 | 2 | 2 | 2 | **5** | - |
| **% Bicycles on Road** | 2% | 2% | 2% | 2% | 2% | **5%** | - | 2% | 2% | 2% | 2% | 2% | **-** | - |
| Udana | - | - | - | - | - | - | 2 | - | - | - | - | - | - | 1 |
| % Udana | - | - | - | - | - | - | 2% | - | - | - | - | - | - | 139% |
| 4ncnahisCga | - | - | - | - | - | - | 72 | - | - | - | - | - | - | P0 |
| % 4ncnahisCga | - | - | - | - | - | - | 1: 31% | - | - | - | - | - | - | 1: 30% |
| UsrBruna yg ) iyaaRCuT | - | - | - | - | - | - | 5 | - | - | - | - | - | - | , |
| % UsrBruna yg ) iyaaRCuT | - | - | - | - | - | - | 931% | - | - | - | - | - | - | , 30% |

*4ncnahisCga Cgc UsrBruna yg ) iyaaRCuT3LDLnbh8o Do st eh8o o Do st ehyg inc8WDWeid8SDS-Wdig

## 25. Genesee St. and Blandina - TMC

Thu Jul 19, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549125, Location: 43.100749, -75.232355, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Genesee St. | | | | | | | Genesee St | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Northbound | | | | | | | Southbound | | | | | | | |
| Time | L | T | R | U | RR | App | Ped* | L | T | R | U | RR | App | Ped* | Int |
| 2018-07-19 7:00AM | 0 | 30 | 3 | 0 | 0 | **11** | 0 | 14 | 40 | 2 | 1 | 0 | **62** | 1 | **81** |
| 7:15AM | 0 | 35 | 1 | 0 | 0 | **15** | 2 | 19 | 54 | 7 | 0 | 0 | **43** | 1 | **979** |
| 7:30AM | 1 | 29 | 1 | 0 | 0 | **19** | 0 | 20 | 61 | 4 | 0 | 1 | **45** | 5 | **972** |
| 7:45AM | 0 | 45 | 4 | 0 | 0 | **08** | 0 | 22 | 76 | 8 | 0 | 0 | **935** | 10 | **959** |
| Hourly Total | 1 | 139 | 9 | 0 | 0 | **908** | 2 | 75 | 231 | 21 | 1 | 1 | **178** | 17 | **637** |
| 8:00AM | 0 | 43 | 1 | 0 | 0 | **00** | 0 | 14 | 72 | 5 | 0 | 1 | **87** | 8 | **903** |
| 8:15AM | 1 | 53 | 0 | 0 | 1 | **66** | 0 | 30 | 75 | 7 | 0 | 0 | **997** | 2 | **925** |
| 8:30AM | 2 | 45 | 1 | 0 | 0 | **04** | 1 | 16 | 64 | 8 | 0 | 0 | **44** | 4 | **907** |
| 8:45AM | 2 | 72 | 3 | 0 | 1 | **24** | 1 | 17 | 85 | 6 | 0 | 0 | **934** | 1 | **948** |
| Hourly Total | 5 | 213 | 5 | 0 | 2 | **776** | 2 | 77 | 296 | 26 | 0 | 1 | **033** | 15 | **502** |
| 9:00AM | 0 | 0 | 0 | 0 | 0 | **3** | 0 | 0 | 0 | 0 | 0 | 0 | **3** | 0 | **3** |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | **3** | 0 | 0 | 0 | 0 | 0 | 0 | **3** | 0 | **3** |
| 4:00PM | 0 | 89 | 1 | 0 | 1 | **89** | 3 | 11 | 123 | 9 | 0 | 1 | **900** | 14 | **763** |
| 4:15PM | 2 | 84 | 4 | 0 | 0 | **83** | 2 | 7 | 112 | 4 | 0 | 0 | **971** | 8 | **777** |
| 4:30PM | 2 | 83 | 1 | 0 | 0 | **45** | 0 | 3 | 98 | 7 | 0 | 0 | **934** | 4 | **736** |
| 4:45PM | 0 | 97 | 2 | 0 | 0 | **88** | 2 | 5 | 87 | 3 | 0 | 0 | **86** | 0 | **739** |
| Hourly Total | 4 | 353 | 8 | 0 | 1 | **155** | 7 | 26 | 420 | 23 | 0 | 1 | **023** | 26 | **424** |
| 5:00PM | 1 | 87 | 0 | 0 | 0 | **44** | 2 | 3 | 115 | 8 | 0 | 0 | **975** | 1 | **711** |
| 5:15PM | 0 | 85 | 0 | 0 | 0 | **46** | 1 | 2 | 81 | 2 | 0 | 0 | **46** | 0 | **920** |
| 5:30PM | 1 | 57 | 1 | 0 | 0 | **68** | 0 | 2 | 72 | 4 | 0 | 0 | **24** | 3 | **903** |
| 5:45PM | 4 | 63 | 2 | 0 | 2 | **29** | 1 | 1 | 88 | 2 | 0 | 0 | **89** | 2 | **923** |
| Hourly Total | 6 | 292 | 3 | 0 | 2 | **131** | 4 | 8 | 356 | 16 | 0 | 0 | **143** | 6 | **292** |
| **Total** | 16 | 997 | 25 | 0 | 5 | **9301** | 15 | 186 | 1303 | 86 | 1 | 3 | **9628** | 64 | **7200** |
| **% Approach** | 1.5% | 95.6% | 2.4% | 0% | 0.5% | - | - | 11.8% | 82.5% | 5.4% | 0.1% | 0.2% | - | - | - |
| **% Total** | 0.6% | 36.3% | 0.9% | 0% | 0.2% | **14.3%** | - | 6.8% | 47.5% | 3.1% | 0% | 0.1% | **62.6%** | - | - |
| **Lights** | 16 | 950 | 25 | 0 | 5 | **885** | - | 186 | 1242 | 84 | 1 | 2 | **9696** | - | 2632 |
| **% Lights** | 100% | 95.3% | 100% | 0% | 100% | **86.6%** | - | 100% | 95.3% | 97.7% | 100% | 66.7% | **86.8%** | - | 95.9% |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 15 | 0 | 0 | 0 | **96** | - | 0 | 29 | 1 | 0 | 1 | **19** | - | 47 |
| **% Articulated Trucks and Single-Unit Trucks** | 0% | 1.5% | 0% | 0% | 0% | **9.0%** | - | 0% | 2.2% | 1.2% | 0% | 33.3% | **7.3%** | - | 1.7% |
| **Buses** | 0 | 31 | 0 | 0 | 0 | **19** | - | 0 | 29 | 1 | 0 | 0 | **13** | - | 61 |
| **% Buses** | 0% | 3.1% | 0% | 0% | 0% | **1.3%** | - | 0% | 2.2% | 1.2% | 0% | 0% | **9.8%** | - | 2.2% |
| **Bicycles on Road** | 0 | 1 | 0 | 0 | 0 | **9** | - | 0 | 3 | 0 | 0 | 0 | **1** | - | 4 |
| **% Bicycles on Road** | 0% | 0.1% | 0% | 0% | 0% | **3.9%** | - | 0% | 0.2% | 0% | 0% | 0% | **3.7%** | - | 0.1% |
| Buses | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | |
| % Buses | - | - | - | - | - | - | 0% | - | - | - | - | - | - | 0% | - |
| Pedestrians | - | - | - | - | - | - | 14 | - | - | - | - | - | - | 64 | |
| % Pedestrians | - | - | - | - | - | - | 93.3% | - | - | - | - | - | - | 100% | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 6.7% | - | - | - | - | - | - | 0% | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

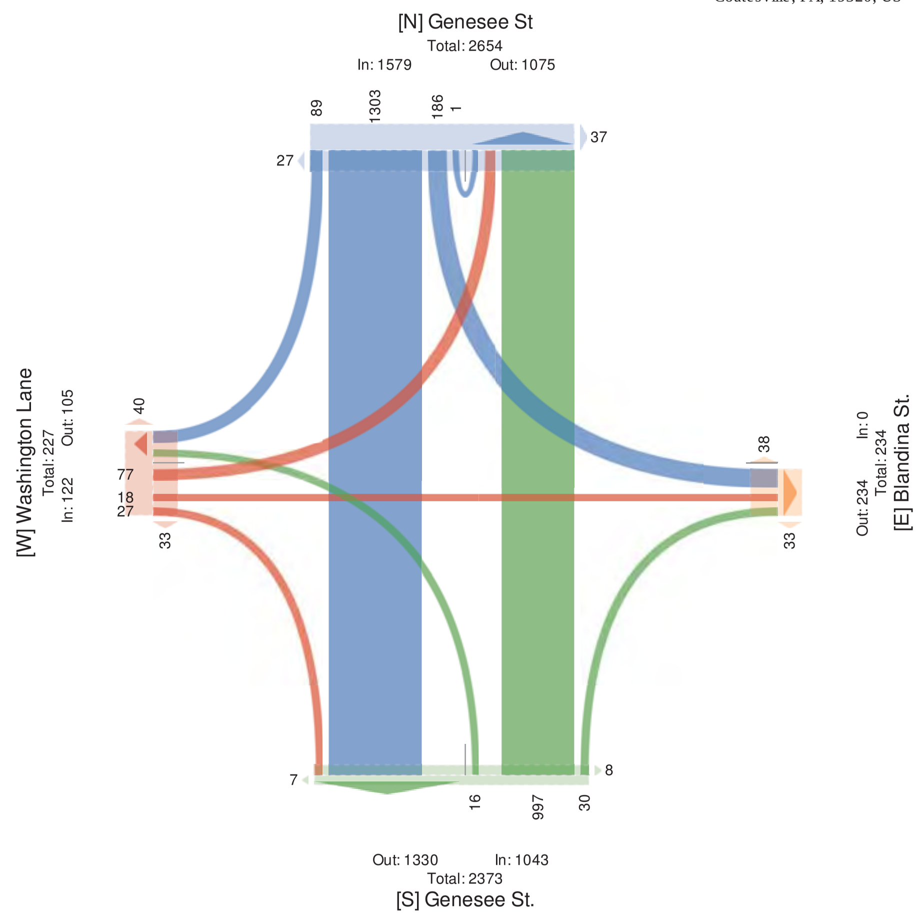
Revised A - 152



## 25. Genesee St. and Blandina - TMC

Thu Jul 19, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549125, Location: 43.100749, -75.232355, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US



## 25. Genesee St. and Blandina - TMC

Wed Jdul 18, 2l 0
ForcPa kP(7 :45AM ) C05AM ) s
- uuLu(iiPi :ght eTi8- rTrcdu(TPa Wrdc7i (na Shnt uPCUnhTWrdc7i 8Bdi Pi 8Bdi Pi 8kPaPi Th(ni 8
BhcycuPi on Ro(a8BhcycuPi on Lroii w(u7s
- uu) ovPmPnTi
ID5MA1l , M8goc(Thon5A63 224A18C4M3 6, 6MM8ShP LoaP5UTc(8. Pw 9 or7

krovhaPa Ny5WrhCS T(TP Wr(Yhc
D(T(8Inc3
l 0AB(7Pr Ro(a8
Lo(TPi vhuP8k- 8l 16, 28US

| gPt<br>DhrPcThon | b (iehnt Ton g(nP<br>f (iTNodna | | | | | | | Bu(nahn( ST3<br>b Pi TNodna | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WmP | g | W | R | U | RR | App | kPaE | g | W | R | U | RR | App | kPaE |
| , 2l 0C24C1 45AM ) | M | 2 | l | 2 | 2 | **6** | 6 | 2 | 2 | 2 | 2 | 2 | **0** | , |
| 0522- ) | l | l | , | 2 | 2 | **4** | , | 2 | 2 | 2 | 2 | 2 | **0** | , |
| 05l M ) | A | M | 2 | 2 | 2 | **9** | l | 2 | 2 | 2 | 2 | 2 | **0** | A |
| 0562- ) | * | 2 | 2 | 2 | 2 | **6** | 6 | 2 | 2 | 2 | 2 | 2 | **0** | 4 |
| **Total** | l * | * | 6 | 2 | 2 | **25** | 1 | 2 | 2 | 2 | 2 | 2 | **0** | l M |
| **% Approach** | * A32% | , A32% | l , 32% | 2% | 2% | - | C | 2% | 2% | 2% | 2% | 2% | - | C |
| **% Total** | , 3*% | l 32% | 23M% | 2% | 2% | **4.0%** | C | 2% | 2% | 2% | 2% | 2% | **0%** | C |
| **PHF** | 23**4 | 23622 | 2364M | C | C | **0.694** | C | C | C | C | C | C | - | C |
| **Lights** | l M | * | 6 | 2 | 2 | **24** | C | 2 | 2 | 2 | 2 | 2 | **0** | C |
| **% Lights** | l 630% | l 22% | l 22% | 2% | 2% | **96.0%** | C | 2% | 2% | 2% | 2% | 2% | - | C |
| **Articulated Trucks and Single-Unit Trucks** | l | 2 | 2 | 2 | 2 | **1** | C | 2 | 2 | 2 | 2 | 2 | **0** | C |
| **% Articulated Trucks and Single-Unit Trucks** | *36% | 2% | 2% | 2% | 2% | **4.0%** | C | 2% | 2% | 2% | 2% | 2% | - | C |
| **Buses** | 2 | 2 | 2 | 2 | 2 | **0** | C | 2 | 2 | 2 | 2 | 2 | **0** | C |
| **% Buses** | 2% | 2% | 2% | 2% | 2% | **0%** | C | 2% | 2% | 2% | 2% | 2% | - | C |
| **Bicycles on Road** | 2 | 2 | 2 | 2 | 2 | **0** | C | 2 | 2 | 2 | 2 | 2 | **0** | C |
| **% Bicycles on Road** | 2% | 2% | 2% | 2% | 2% | **0%** | C | 2% | 2% | 2% | 2% | 2% | - | C |
| Bdi Pi | C | C | C | C | C | C | 2 | C | C | C | C | C | C | l |
| % Bdi Pi | C | C | C | C | C | C | 2% | C | C | C | C | C | C | *34% |
| kPa Pi Th(ni | C | C | C | C | C | C | 0 | C | C | C | C | C | C | l 6 |
| % kPa Pi Th(ni | C | C | C | C | C | C | 0031% | C | C | C | C | C | C | 0*34% |
| BhcycuPi on Lroii w(u7 | C | C | C | C | C | C | l | C | C | C | C | C | C | l |
| % BhcycuPi on Lroii w(u7 | C | C | C | C | C | C | l l 31% | C | C | C | C | C | C | *34% |

E kPa Pi Th(ni (na BhcycuPi on Lroii w(u73g5gPY8R5Rht eT8RR5Rht eTon rPa8W5Werd8U5UCWdrn



## 25. Genesee St. and Blandina - TMC

Thu Jul 19, 2018
Forced Peak (4M5) A C8M5) As
) ll Llaiiei (gtnhSi , ) rSculaSed Trucki aUd BtUnleCy UtSTrucki , Ruiei , Ruiei , PedeiSrtaUi ,
Rtcwclei oUv oad, Rtcwclei oULroiimalks
) ll AoIeDeUSi
:3 M5- 9125, gocaStoUM. 71004- 9, C4572. 2. 55, BtSe LodeMy Stca, Nem York

ProI tded bwMTrtCBSaSe Trafftc
3 aSa, :Uc7
18- Raker v oad,
LoaSei I tlle, P) , 19. 20, y B

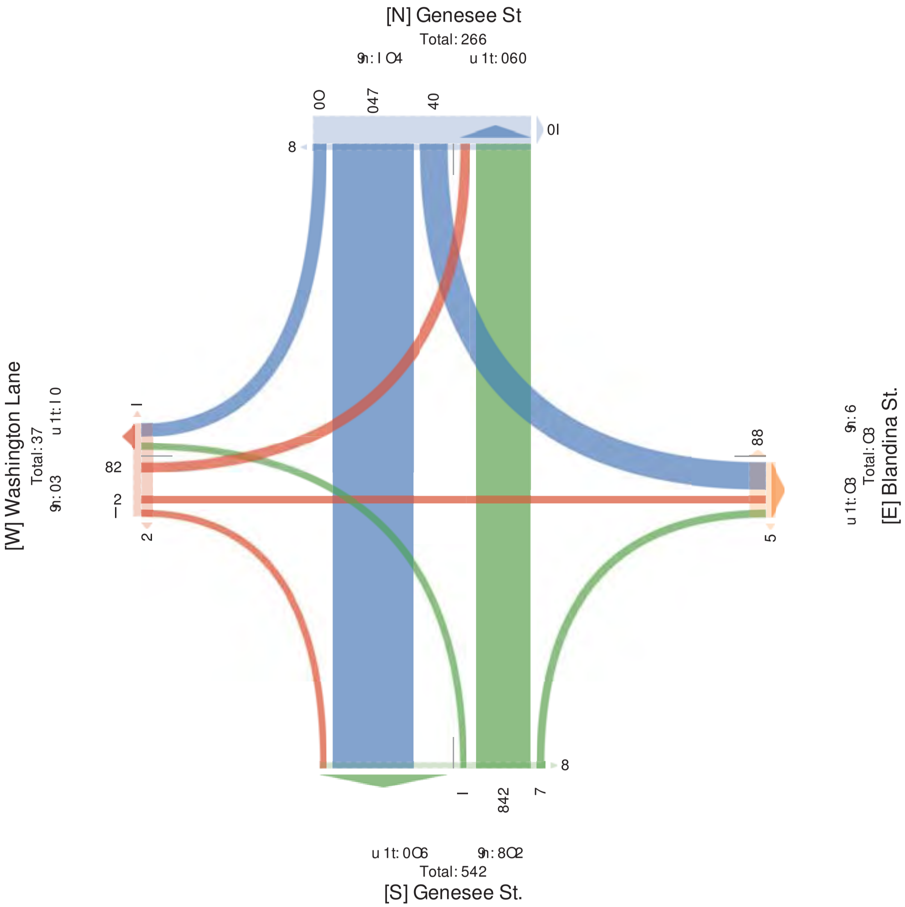
| gen<br>3 trecStoU | GeUeiee BS7<br>NorShbouUd | | | | | | | GeUeiee BS<br>BouShbouUd | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TtDe | g | T | v | y | vv | App | Ped* | g | T | v | y | vv | App | Ped* | Int |
| 2018C04C19 4M5) A | 0 | - 5 | - | 0 | 0 | **25** | 0 | 22 | 46 | 8 | 0 | 0 | **174** | 10 | **141** |
| 8M0) A | 0 | - . | 1 | 0 | 0 | **22** | 0 | 1- | 42 | 5 | 0 | 1 | **58** | 8 | **127** |
| 8M5) A | 1 | 5. | 0 | 0 | 1 | **00** | 0 | . 0 | 45 | 4 | 0 | 0 | **118** | 2 | **134** |
| 8M0) A | 2 | - 5 | 1 | 0 | 0 | **26** | 1 | 16 | 6- | 8 | 0 | 0 | **66** | - | **128** |
| **9 Ttoa** | . | 186 | 6 | 0 | 1 | **154** | 1 | 82 | 284 | 28 | 0 | 1 | **l 56** | 2- | **415** |
| **% Apprıoch** | 1.5% | 9- 79% | . 71% | 0% | 075% | - | C | 2076% | 4271% | 470% | 0% | 07. % | - | C | C |
| **% 9 Ttoa** | 075% | . 070% | 170% | 0% | 072% | **l 1.3%** | C | 1. 72% | - 67- % | - 75% | 0% | 072% | **42.l %** | C | C |
| **PHF** | 07. 45 | 07844 | 07. 45 | C | 07250 | **7.651** | C | 0768. | 079- - | 07845 | C | 07250 | **7.666** | C | 07849 |
| **Lights** | . | 14. | 6 | 0 | 1 | **16l** | C | 82 | 265 | 24 | 0 | 0 | **l 32** | C | 581 |
| **% Lights** | 100% | 9. 70% | 100% | 0% | 100% | **5l .2%** | C | 100% | 927. % | 967- % | 0% | 0% | **52.7%** | C | 9. 79% |
| **Articuaoted 9 rucks ond Singæ-Unit 9 rucks** | 0 | - | 0 | 0 | 0 | **2** | C | 0 | 15 | 0 | 0 | 1 | **14** | C | 21 |
| **% Articuaoted 9 rucks ond Singæ-Unit 9 rucks** | 0% | 272% | 0% | 0% | 0% | **8.7%** | C | 0% | 572% | 0% | 0% | 100% | **2.7%** | C | . 7- % |
| **Buses** | 0 | 9 | 0 | 0 | 0 | **5** | C | 0 | 4 | 1 | 0 | 0 | **6** | C | 14 |
| **% Buses** | 0% | - 78% | 0% | 0% | 0% | **2.4%** | C | 0% | 27- % | . 76% | 0% | 0% | **8.7%** | C | 274% |
| **Bicycæs Tn RTod** | 0 | 0 | 0 | 0 | 0 | **7** | C | 0 | 0 | 0 | 0 | 0 | **7** | C | 0 |
| **% Bicycæs Tn RTod** | 0% | 0% | 0% | 0% | 0% | **7%** | C | 0% | 0% | 0% | 0% | 0% | **7%** | C | 0% |
| Ruiei | C | C | C | C | C | C | 0 | C | C | C | C | C | C | 0 | |
| % Ruiei | C | C | C | C | C | C | 0% | C | C | C | C | C | C | 0% | C |
| PedeiSrtaUi | C | C | C | C | C | C | 1 | C | C | C | C | C | C | 2- | |
| % PedeiSrtaUi | C | C | C | C | C | C | 100% | C | C | C | C | C | C | 100% | C |
| Rtcwclei oULroiimalk | C | C | C | C | C | C | 0 | C | C | C | C | C | C | 0 | |
| % Rtcwclei oULroiimalk | C | C | C | C | C | C | 0% | C | C | C | C | C | C | 0% | C |

*PedeiSrtaUi aUd Rtcwclei oULroiimalk7gMgefS, v Mr tnhS, v v Mr tnhSoUred, TMThru, y My CTurU

## 25. Genesee St. and Blandina - TMC

Thu Jul 19, 2018
Forced Peak (7:45AM - 8:45AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549125, Location: 43.100749, -75.232355, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US






## 25. Genesee St. and Blandina - TMC

Wed Jdul 18, 21 0
AM Pak( -0AM 91AM)
AuCukssas -Ligehs8Athirdukhac Wdr(s kTc niTguu9S TihWdr(s8Udsas8Udsas8PacashtikTs8 UirBruas yTo ykc8UirBruas yT CtyssRku()
AuMywav aThs
mI D: 51l , : 8LyrkhiyTD546 2235189B: 6, 4, 4: : 8niha CycaDShirk8. aR 7 yt(

Ptywicac NBDWti9nlkha WtkYYr I khk8mTr6
l 05 Uk(at oykc8
Cykhaswiua8PA8l 14, 28Sn

| Lag I itarhiyT | b kseiTghyT LkTa f kshNydTc | | | | | | | UukTciTk nh6 b ashNydTc | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Wiv a | L | W | o | S | oo | App | PacE | L | W | o | S | oo | App | PacE |
| , 2l 09239l 1 0D22AM | l | l | , | 2 | 2 | 4 | , | 2 | 2 | 2 | 2 | 2 | 0 | , |
| 0lD: AM | 5 | : | 2 | 2 | 2 | 9 | l | 2 | 2 | 2 | 2 | 2 | 0 | 5 |
| 0lD42AM | * | 2 | 2 | 2 | 2 | 6 | 4 | 2 | 2 | 2 | 2 | 2 | 0 | 3 |
| 0lD5: AM | l | 2 | , | 2 | 2 | 3 | : | 2 | 2 | 2 | 2 | 2 | 0 | : |
| **Total** | l, | * | 5 | 2 | 2 | **22** | 11 | 2 | 2 | 2 | 2 | 2 | **0** | 10 |
| **% Approach** | : 56 % | , 364% | 106, % | 2% | 2% | - | 9 | 2% | 2% | 2% | 2% | 2% | - | 9 |
| **% Total** | 161% | 261% | 26*% | 2% | 2% | **3.4%** | 9 | 2% | 2% | 2% | 2% | 2% | **0%** | 9 |
| **PHF** | 26 22 | 26422 | 26 22 | 9 | 9 | **0.611** | 9 | 9 | 9 | 9 | 9 | 9 | - | 9 |
| **Lights** | 11 | * | 5 | 2 | 2 | **21** | 9 | 2 | 2 | 2 | 2 | 2 | **0** | 9 |
| **% Lights** | 1163% | 122% | 122% | 2% | 2% | **95.5%** | 9 | 2% | 2% | 2% | 2% | 2% | - | 9 |
| **Articulated Trucks and Single-Unit Trucks** | l | 2 | 2 | 2 | 2 | **1** | 9 | 2 | 2 | 2 | 2 | 2 | **0** | 9 |
| **% Articulated Trucks and Single-Unit Trucks** | 064% | 2% | 2% | 2% | 2% | **4.5%** | 9 | 2% | 2% | 2% | 2% | 2% | - | 9 |
| **Buses** | 2 | 2 | 2 | 2 | 2 | **0** | 9 | 2 | 2 | 2 | 2 | 2 | **0** | 9 |
| **% Buses** | 2% | 2% | 2% | 2% | 2% | **0%** | 9 | 2% | 2% | 2% | 2% | 2% | - | 9 |
| **Bicycles on Road** | 2 | 2 | 2 | 2 | 2 | **0** | 9 | 2 | 2 | 2 | 2 | 2 | **0** | 9 |
| **% Bicycles on Road** | 2% | 2% | 2% | 2% | 2% | **0%** | 9 | 2% | 2% | 2% | 2% | 2% | - | 9 |
| Udsas | 9 | 9 | 9 | 9 | 9 | 9 | 2 | 9 | 9 | 9 | 9 | 9 | 9 | l |
| % Udsas | 9 | 9 | 9 | 9 | 9 | 9 | 2% | 9 | 9 | 9 | 9 | 9 | 9 | : 6*% |
| PacashtikTs | 9 | 9 | 9 | 9 | 9 | 9 | 11 | 9 | 9 | 9 | 9 | 9 | 9 | l* |
| % PacashtikTs | 9 | 9 | 9 | 9 | 9 | 9 | 122% | 9 | 9 | 9 | 9 | 9 | 9 | 0061% |
| UirBruas yT CtyssRku( | 9 | 9 | 9 | 9 | 9 | 9 | 2 | 9 | 9 | 9 | 9 | 9 | 9 | l |
| % UirBruas yT CtyssRku( | 9 | 9 | 9 | 9 | 9 | 9 | 2% | 9 | 9 | 9 | 9 | 9 | 9 | : 6*% |

[E] PacashtikTs kTc UirBruas yT CtyssRku( 6LDLaY8o Doigel8o o DoigehyT tac8WDWetd8S DS 9WdtT



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**25. Genesee St. and Blandina - TMC**
Thu Jul 19, 2018
AM Peak (8AM 79AM:
All 3 la--e- () ChL, AiIculalet Tiugk- art cCs le7d r CLTiugk-, nu-e-, nu-e-, Pet e-LiCar-,
nCgSgle- Ur BUat , nCgSgle- Ur 3 iU--y alk:
All MUbeR er L
w mI D912I , ) UgaICUr mD54 00. D9, 7. I 42525I I , c Cle 3 Ut emd ICga, Ney YUik

TRI-STATE TRAFFIC DATA
PiUbCet bSmTiCc IaIe TiaffCg
v aIa, wr g4
18Dnakei BUat ,
3 UaIe-oCle, PA, 19520, d c

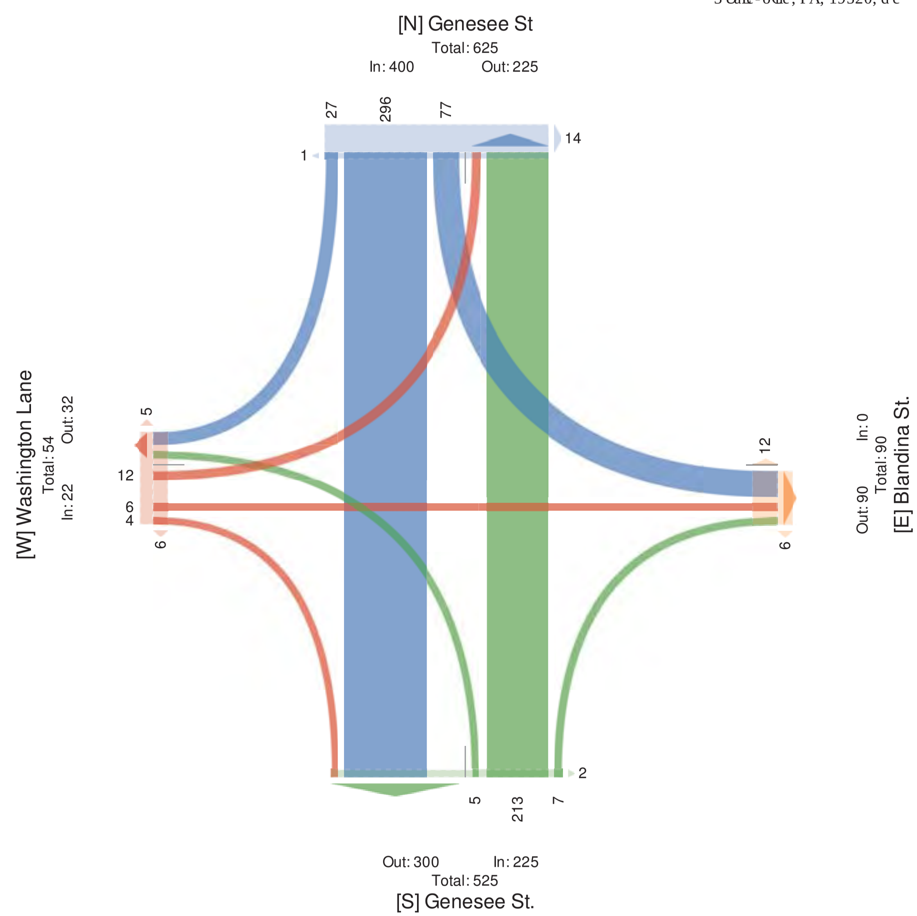
| ) es<br>v CegICUr | Gere-ee cI4<br>NUiIhbUur t | | | | | | | Gere-ee cL<br>cUuIhbUur t | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCR e | ) | T | B | d | BB | App | Pet * | ) | T | B | d | BB | App | Pet * | Int |
| 20187. 719 8m00AM | 0 | D5 | 1 | 0 | 0 | 22 | 0 | 1D | . 2 | I | 0 | 1 | 51 | 8 | 724 |
| 8m1I AM | 1 | I 5 | 0 | 0 | 1 | 88 | 0 | 50 | . I | . | 0 | 0 | 771 | 2 | 703 |
| 8m50AM | 2 | DI | 1 | 0 | 0 | 26 | 1 | 16 | 6D | 8 | 0 | 0 | 66 | D | 721 |
| 8mDI AM | 2 | . 2 | 5 | 0 | 1 | 06 | 1 | 1. | 8I | 6 | 0 | 0 | 746 | 1 | 765 |
| **9 Ttoa** | I | 215 | I | 0 | 2 | **118** | 2 | . . | 296 | 26 | 0 | 1 | **244** | 1I | **320** |
| **l %App Torc** | 24 2% | 9D4 % | 24 2% | 0% | 04 9% | **h** | 7 | 194 5% | . D4 0% | 64 1 % | 0% | 04 5% | **h** | 7 | 7 |
| **l % Ttoa** | 04 8% | 524 9% | 04 8% | 0% | 04 5% | **- 2.6l** | 7 | 114 9% | DI 4 % | D4 0% | 0% | 04 2% | **37.6l** | 7 | 7 |
| **PHF** | 0462I | 04 D0 | 04D1. | | 704 I 00 | **4.017** | 7 | 04 6D2 | 04 8. 1 | 04 815 | | 704 2I 0 | **4.65-** | 7 | 04 8I 6 |
| **Ligcts** | I | 201 | I | 0 | 2 | **17-** | 7 | . . | 2. 6 | 26 | 0 | 0 | **- 05** | 7 | 615 |
| **l %Ligcts** | 100% | 9D4D% | 100% | 0% | 100% | **52.0l** | 7 | 100% | 954 2% | 100% | 0% | 0% | **52.6l** | 7 | 9D4 % |
| **A tiruaoted% urks%nd%ingaelUnit% urks** | 0 | 2 | 0 | 0 | 0 | **1** | 7 | 0 | 1D | 0 | 0 | 1 | **78** | 7 | 18 |
| **l %A tiruaoted% urks%nd%ingaelUnit% urks** | 0% | 04 9% | 0% | 0% | 0% | **4.5l** | 7 | 0% | D4 % | 0% | 0% | 100% | **- .6l** | 7 | 24 8% |
| **Buses** | 0 | 9 | 0 | 0 | 0 | **5** | 7 | 0 | 6 | 0 | 0 | 0 | **3** | 7 | 1I |
| **l %Buses** | 0% | D4 2% | 0% | 0% | 0% | **2.4l** | 7 | 0% | 24 0% | 0% | 0% | 0% | **7.8l** | 7 | 24 5% |
| **Biryraes%n%RTod** | 0 | 1 | 0 | 0 | 0 | **7** | 7 | 0 | 0 | 0 | 0 | 0 | **4** | 7 | 1 |
| **l %Biryraes%n%RTod** | 0% | 04 1 % | 0% | 0% | 0% | **4.2l** | 7 | 0% | 0% | 0% | 0% | 0% | **4l** | 7 | 04 2% |
| nu-e- | 7 | 7 | 7 | 7 | 7 | 7 | 0 | 7 | 7 | 7 | 7 | 7 | 7 | 0 | |
| % nu-e- | 7 | 7 | 7 | 7 | 7 | 7 | 0% | 7 | 7 | 7 | 7 | 7 | 7 | 0% | 7 |
| Pet e-LiCar- | 7 | 7 | 7 | 7 | 7 | 7 | 2 | 7 | 7 | 7 | 7 | 7 | 7 | 1I | |
| % Pet e-LiCar- | 7 | 7 | 7 | 7 | 7 | 7 | 100% | 7 | 7 | 7 | 7 | 7 | 7 | 100% | 7 |
| nCgSgle- Ur 3 iU--y alk | 7 | 7 | 7 | 7 | 7 | 7 | 0 | 7 | 7 | 7 | 7 | 7 | 7 | 0 | |
| % nCgSgle- Ur 3 iU--y alk | 7 | 7 | 7 | 7 | 7 | 7 | 0% | 7 | 7 | 7 | 7 | 7 | 7 | 0% | 7 |

*Pet e-LiCar- art nCgSgle- Ur 3 iU--y alk4) m) efL, BmBCs hL, BBmBCs hLUr iet , TmThiu, d md 7Tuir



**25. Genesee St. and Blandina - TMC**
Thu Jul 19, 2018
AM Peak (8AM 79AM:
All 3 la--e- () ChL, AiIculalet Tiugk- art cCs le7d r CLTiugk-, nu-e-, nu-e-, Pet e-LiCar-,
nCgSgle- Ur BUat , nCgSgle- Ur 3 iU--y alk:
All MUbeR er L
w mI D912I , ) UgaICUr mD54 00. D9, 7. I 42525I I , c Cle 3 Ut emd ICga, Ney YUik

TRI-STATE TRAFFIC DATA
PiUbCet bSmTiCc IaIe TiaffCg
v aIa, wr g4
18Dnakei BUat ,
3 UaIe-oCle, PA, 19520, d c






Revised A - 155

## 25. Genesee St. and Blandina - TMC

Wed Jdul 18, 2l 0
PM Pak( 4-PM 5) PMO5v r aHkuPak( oAdH
Cuus ukLLaL4i ghetL8CHgcduktaT WHdc(LknT Sgnhua5Ungt WHdc(L8BdLaL8BdLaL8PaTaLtHgknL8
BgcycuaL An RAkT8BgcycuaL An s HALLwku(O
CuuMAr amantL
ID: ) - 1l , ) 8i AcktgAn: - 93 22. - 185 ) 3 9, 9) ) 8Sgta s ATa: Utgck87 aw 6 AH(

PHAr gTaT Ny: WHg5Stkta WHkYgc
Dktk8Inc3
l 0- Bk(aHRAkT8
s AktaLr gua 8PC8l 19, 28US

| i ah DgHactgAn | b kLegnhtAn i kna f kLtNAdnT | | | | | | | BtknTgnk St3 b aLtNAdnT | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Wgma | i | W | R | U | RR | App | PaTE | i | W | R | U | RR | App | PaTE |
| , 2105 2. 5 1 1 - :22PM | 1l | l | 9 | 2 | 2 | 15 | ) | 2 | 2 | 2 | 2 | 2 | 0 | 0 |
| - :l ) PM | 1 | 2 | 2 | 2 | 2 | 9 | ) | 2 | 2 | 2 | 2 | 2 | 0 | 9 |
| - :92PM | . | 9 | l | 2 | 2 | 11 | l , | 2 | 2 | 2 | 2 | 2 | 0 | 19 |
| - :- ) PM | 9 | l | , | 2 | l | 7 | 9 | 2 | 2 | 2 | 2 | 2 | 0 | l |
| **Total** | 92 | ) | * | 2 | l | 42 | . ) | 2 | 2 | 2 | 2 | 2 | 0 | . ) |
| **% Approach** | . 13- % | l13 1% | l - 39% | 2% | , 3- % | - | 5 | 2% | 2% | 2% | 2% | 2% | - | 5 |
| **% Total** | 93- % | 23*% | 23 . % | 2% | 23 1% | 4.8% | 5 | 2% | 2% | 2% | 2% | 2% | 0% | 5 |
| **PHF** | 23*0, | 23-1 . | 23) 22 | 5 | 23, ) 2 | 0.700 | 5 | 5 | 5 | 5 | 5 | 5 | - | 5 |
| **Lights** | 92 | ) | * | 2 | l | 42 | 5 | 2 | 2 | 2 | 2 | 2 | 0 | 5 |
| **% Lights** | l22% | l22% | l22% | 2% | l22% | 100% | 5 | 2% | 2% | 2% | 2% | 2% | - | 5 |
| **Articulated Trucks and Single-Unit Trucks** | 2 | 2 | 2 | 2 | 2 | 0 | 5 | 2 | 2 | 2 | 2 | 2 | 0 | 5 |
| **% Articulated Trucks and Single-Unit Trucks** | 2% | 2% | 2% | 2% | 2% | 0% | 5 | 2% | 2% | 2% | 2% | 2% | - | 5 |
| **Buses** | 2 | 2 | 2 | 2 | 2 | 0 | 5 | 2 | 2 | 2 | 2 | 2 | 0 | 5 |
| **% Buses** | 2% | 2% | 2% | 2% | 2% | 0% | 5 | 2% | 2% | 2% | 2% | 2% | - | 5 |
| **Bicycles on Road** | 2 | 2 | 2 | 2 | 2 | 0 | 5 | 2 | 2 | 2 | 2 | 2 | 0 | 5 |
| **% Bicycles on Road** | 2% | 2% | 2% | 2% | 2% | 0% | 5 | 2% | 2% | 2% | 2% | 2% | - | 5 |
| BdLaL | 5 | 5 | 5 | 5 | 5 | 5 | 2 | 5 | 5 | 5 | 5 | 5 | 5 | 2 |
| % BdLaL | 5 | 5 | 5 | 5 | 5 | 5 | 2% | 5 | 5 | 5 | 5 | 5 | 5 | 2% |
| PaTaLtHgknL | 5 | 5 | 5 | 5 | 5 | 5 | , ) | 5 | 5 | 5 | 5 | 5 | 5 | , - |
| % PaTaLtHgknL | 5 | 5 | 5 | 5 | 5 | 5 | l22% | 5 | 5 | 5 | 5 | 5 | 5 | 1*32% |
| BgcycuaL An s HALLwku( | 5 | 5 | 5 | 5 | 5 | 5 | 2 | 5 | 5 | 5 | 5 | 5 | 5 | l |
| % BgcycuaL An s HALLwku( | 5 | 5 | 5 | 5 | 5 | 5 | 2% | 5 | 5 | 5 | 5 | 5 | 5 | - 32% |

EPaTaLtHgknL knT BgcycuaL An s HALLwku(3i : i aY8R: Rghet8RR: Rghet An HaT8W WeHd8U: U5WdHn



## 25. Genesee St. and Blandina - TMC

Thu Jul 19, 2018
PM Peak (4PM : 5PM- : ) Oevall Peak r Huv
o ll AlaCCeC(sLi hgC, o vgLtulagec TvutkCadc nLdi le:SdIgTvutkC, UuCeC, UuCeC, PeceCgvLadC,
ULt Bt leCHd y Hac, ULt Bt leCHd AvHCCRalk-
o ll MHOewedgC
nI D549125, sHt agLHdD43.100749, :75.232355, nIge AHceDS gLta, NeR YHvk

PvHOLcec bBDTvL:ngage TvaffLt
I aga, ndt .
184 Uakev y Hac,
AHageCOLle, Po, 19320, Sn

| sei I lvet gLHd | GedeCee ng NHvghbHudc | | | | | | | GedeCee ng nHughbHudc | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TLwe | s | T | y | S | yy | App | Pec* | s | T | y | S | yy | App | Pec* | Int |
| 2018:07:19 4D0PM | 0 | 89 | 1 | 0 | 1 | 25 | 3 | 11 | 123 | 9 | 0 | 1 | 511 | 14 | 748 |
| 4D15PM | 2 | 84 | 4 | 0 | 0 | 28 | 2 | 7 | 112 | 4 | 0 | 0 | 570 | 8 | 777 |
| 4D30PM | 2 | 83 | 1 | 0 | 0 | 36 | 0 | 3 | 98 | 7 | 0 | 0 | 583 | 4 | 784 |
| 4D45PM | 0 | 97 | 2 | 0 | 0 | 22 | 2 | 5 | 87 | 3 | 0 | 0 | 24 | 0 | 785 |
| **9 ıtoa** | 4 | 353 | 8 | 0 | 1 | 066 | 7 | 26 | 420 | 23 | 0 | 1 | 118 | 26 | 313 |
| **% ApprToch** | 1.1% | 96.4% | 2.2% | 0% | 0.3% | - | : | 5.5% | 89.4% | 4.9% | 0% | 0.2% | - | : | : |
| **% 9 Ttoa** | 0.5% | 40.2% | 0.9% | 0% | 0.1% | 15.l % | : | 3.0% | 47.8% | 2.6% | 0% | 0.1% | 40.4% | : | : |
| **PHF** | 0.500 | 0.910 | 0.500 | : | 0.250 | 8.271 | : | 0.591 | 0.854 | 0.639 | : | 0.250 | 8.356 | : | 0.878 |
| **Lights** | 4 | 344 | 8 | 0 | 1 | 04l | : | 26 | 410 | 23 | 0 | 1 | 168 | : | 859 |
| **% Lights** | 100% | 97.5% | 100% | 0% | 100% | 2l .4% | : | 100% | 97.6% | 100% | 0% | 100% | 2l .2% | : | 97.8% |
| **Articuated 9 rucks ond Singæ-Unit 9 rucks** | 0 | 2 | 0 | 0 | 0 | 7 | : | 0 | 3 | 0 | 0 | 0 | 0 | : | 5 |
| **% Articuated 9 rucks ond Singæ-Unit 9 rucks** | 0% | 0.6% | 0% | 0% | 0% | 8.4% | : | 0% | 0.7% | 0% | 0% | 0% | 8.6% | : | 0.6% |
| **Buses** | 0 | 7 | 0 | 0 | 0 | l | : | 0 | 7 | 0 | 0 | 0 | l | : | 14 |
| **% Buses** | 0% | 2.0% | 0% | 0% | 0% | 5.2% | : | 0% | 1.7% | 0% | 0% | 0% | 5.4% | : | 1.6% |
| **Bicycæs Tn RTod** | 0 | 0 | 0 | 0 | 0 | 8 | : | 0 | 0 | 0 | 0 | 0 | 8 | : | 0 |
| **% Bicycæs Tn RTod** | 0% | 0% | 0% | 0% | 0% | 8% | : | 0% | 0% | 0% | 0% | 0% | 8% | : | 0% |
| UuCeC | : | : | : | : | : | : | 0 | : | : | : | : | : | : | 0 | |
| % UuCeC | : | : | : | : | : | : | 0% | : | : | : | : | : | : | 0% | : |
| PeceCgvLadC | : | : | : | : | : | : | 6 | : | : | : | : | : | : | 26 | |
| % PeceCgvLadC | : | : | : | : | : | : | 85.7% | : | : | : | : | : | : | 100% | : |
| ULt Bt leCHd AvHCCRalk | : | : | : | : | : | : | 1 | : | : | : | : | : | : | 0 | |
| % ULt Bt leCHd AvHCCRalk | : | : | : | : | : | : | 14.3% | : | : | : | : | : | : | 0% | : |

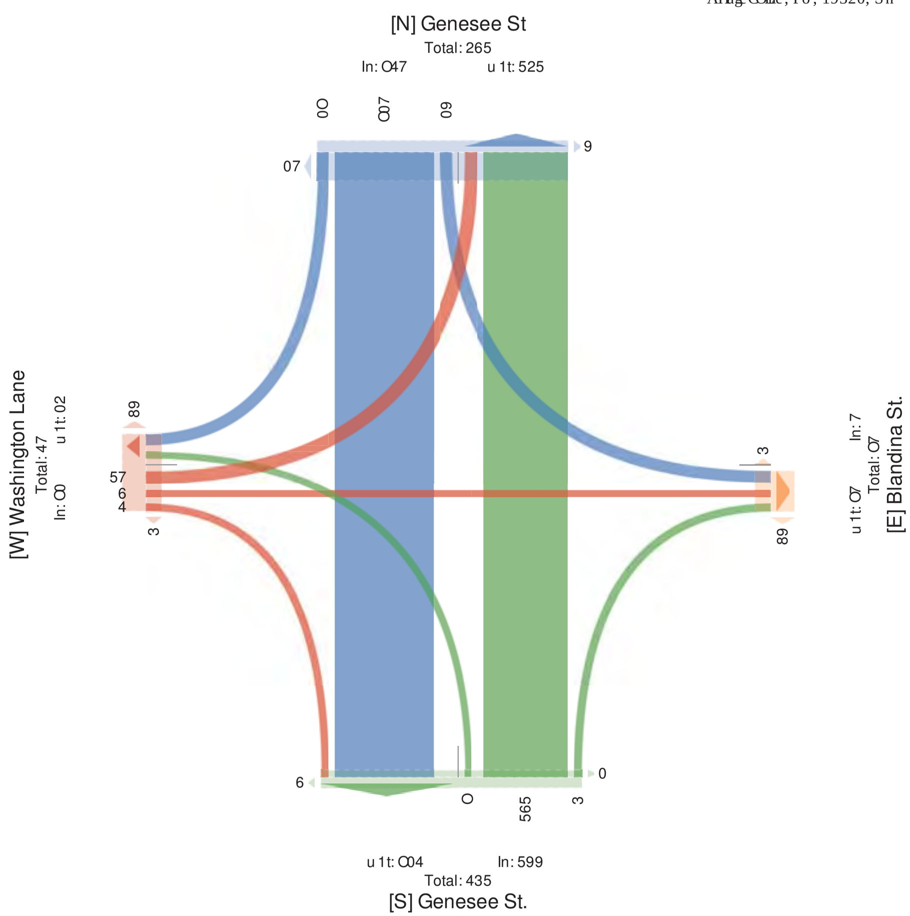
*PeceCgvLadCadc ULt Bt leCHd AvHCCRalk. sDs efg y Dy Li hg y y Dy Li hgHd vec, TDThvu, SDS :Tuvd

## 25. Genesee St. and Blandina - TMC

Thu Jul 19, 2018
PM Peak (4PM : 5PM- : ) Oevall Peak r Huv
o ll AlaCGeC(s Li. hgC, o vgLulagec Tvut kCadc nLdi le:SdlgTvut kC, UuGeC, UuGeC, PeceGyladC,
ULt Bt le CHd y Hac, ULt Bt le CHd AvHCCRalk-
o ll MHOewedgC
nl D549125, s Ht agllHD43.100749, :75.232355, nLge AHceDS gLt a, NeR YHvk

TRI-STATE TRAFFIC DATA

PvHOLcec bBDTvLngege TvaffLt
I aga, nlt.
184 Uakevy Hac,
AHageCOLle, Po, 19320, Sn






## 26. Genesee St. and Bank Pl. - TMC

Thu Jul 19, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549126, Location: 43.100182, -75.233485, Site Code: Utica, New York

TRI-STATE TRAFFIC DATA

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Bank Pl. | | | | | Genesee St. | | | | | Genesee St. | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Westbound | | | | | Northbound | | | | | Southbound | | | | | |
| Time | L | R | U | App | Ped* | T | R | U | App | Ped* | L | T | U | App | Ped* | Int |
| 2018-07-19 7:00AM | 0 | 0 | 0 | **1** | 0 | 28 | 0 | 0 | **62** | 0 | 4 | 36 | 0 | **81** | 1 | **52** |
| 7:15AM | 0 | 0 | 0 | **1** | 3 | 39 | 1 | 1 | **84** | 1 | 0 | 50 | 0 | **31** | 0 | **94** |
| 7:30AM | 0 | 0 | 0 | **1** | 2 | 32 | 0 | 0 | **76** | 0 | 3 | 65 | 0 | **52** | 0 | **411** |
| 7:45AM | 0 | 0 | 0 | **1** | 2 | 47 | 3 | 0 | **31** | 1 | 5 | 70 | 0 | **03** | 0 | **463** |
| Hourly Total | 0 | 0 | 0 | **1** | 7 | 146 | 4 | 1 | **434** | 2 | 12 | 221 | 0 | **677** | 1 | **728** |
| 8:00AM | 0 | 0 | 0 | **1** | 2 | 46 | 2 | 0 | **82** | 0 | 6 | 77 | 0 | **27** | 0 | **474** |
| 8:15AM | 0 | 0 | 0 | **1** | 7 | 56 | 6 | 0 | **56** | 5 | 7 | 57 | 0 | **58** | 0 | **465** |
| 8:30AM | 0 | 0 | 0 | **1** | 9 | 51 | 6 | 0 | **30** | 5 | 4 | 65 | 0 | **59** | 0 | **465** |
| 8:45AM | 0 | 0 | 0 | **1** | 5 | 67 | 3 | 1 | **04** | 5 | 9 | 76 | 0 | **23** | 2 | **435** |
| Hourly Total | 0 | 0 | 0 | **1** | 23 | 220 | 17 | 1 | **672** | 15 | 26 | 275 | 0 | **714** | 2 | **379** |
| 4:00PM | 0 | 0 | 0 | **1** | 15 | 94 | 5 | 0 | **99** | 2 | 8 | 104 | 0 | **446** | 2 | **644** |
| 4:15PM | 0 | 0 | 0 | **1** | 2 | 91 | 7 | 0 | **92** | 2 | 7 | 103 | 0 | **441** | 2 | **612** |
| 4:30PM | 0 | 0 | 0 | **1** | 8 | 86 | 8 | 0 | **98** | 3 | 7 | 81 | 0 | **22** | 1 | **426** |
| 4:45PM | 0 | 0 | 0 | **1** | 4 | 105 | 4 | 0 | **419** | 2 | 6 | 84 | 0 | **91** | 0 | **499** |
| Hourly Total | 0 | 0 | 0 | **1** | 29 | 376 | 24 | 0 | **811** | 9 | 28 | 372 | 0 | **811** | 5 | **211** |
| 5:00PM | 0 | 0 | 0 | **1** | 3 | 87 | 3 | 0 | **91** | 5 | 5 | 115 | 0 | **461** | 0 | **641** |
| 5:15PM | 0 | 0 | 0 | **1** | 14 | 91 | 7 | 0 | **92** | 3 | 6 | 69 | 0 | **03** | 0 | **407** |
| 5:30PM | 0 | 0 | 0 | **1** | 0 | 60 | 6 | 0 | **55** | 0 | 4 | 74 | 0 | **02** | 0 | **488** |
| 5:45PM | 0 | 0 | 0 | **1** | 3 | 71 | 5 | 0 | **05** | 1 | 8 | 80 | 2 | **91** | 0 | **455** |
| Hourly Total | 0 | 0 | 0 | **1** | 20 | 309 | 21 | 0 | **771** | 9 | 23 | 338 | 2 | **757** | 0 | **597** |
| 6:00PM | 0 | 0 | 0 | **1** | 0 | 0 | 0 | 0 | **1** | 0 | 0 | 0 | 0 | **1** | 0 | **1** |
| Hourly Total | 0 | 0 | 0 | **1** | 0 | 0 | 0 | 0 | **1** | 0 | 0 | 0 | 0 | **1** | 0 | **1** |
| **Total** | 0 | 0 | 0 | **1** | 79 | 1051 | 66 | 2 | **4449** | 35 | 89 | 1206 | 2 | **4690** | 8 | **6845** |
| **% Approach** | 0% | 0% | 0% | - | - | 93.9% | 5.9% | 0.2% | - | - | 6.9% | 93.0% | 0.2% | - | - | - |
| **% Total** | 0% | 0% | 0% | **1%** | - | 43.5% | 2.7% | 0.1% | **85.7%** | - | 3.7% | 49.9% | 0.1% | **37.0%** | - | - |
| **Lights** | 0 | 0 | 0 | **1** | - | 1005 | 65 | 2 | **4106** | - | 88 | 1146 | 2 | **4675** | - | 2308 |
| **% Lights** | 0% | 0% | 0% | - | - | 95.6% | 98.5% | 100% | **93.2%** | - | 98.9% | 95.0% | 100% | **93.7%** | - | 95.5% |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 0 | 0 | **1** | - | 14 | 0 | 0 | **48** | - | 0 | 27 | 0 | **60** | - | 41 |
| **% Articulated Trucks and Single-Unit Trucks** | 0% | 0% | 0% | - | - | 1.3% | 0% | 0% | **4.7%** | - | 0% | 2.2% | 0% | **6.4%** | - | 1.7% |
| **Buses** | 0 | 0 | 0 | **1** | - | 32 | 0 | 0 | **76** | - | 0 | 30 | 0 | **71** | - | 62 |
| **% Buses** | 0% | 0% | 0% | - | - | 3.0% | 0% | 0% | **6.9%** | - | 0% | 2.5% | 0% | **6.7%** | - | 2.6% |
| **Bicycles on Road** | 0 | 0 | 0 | **1** | - | 0 | 1 | 0 | **4** | - | 1 | 3 | 0 | **8** | - | 5 |
| **% Bicycles on Road** | 0% | 0% | 0% | - | - | 0% | 1.5% | 0% | **1.4%** | - | 1.1% | 0.2% | 0% | **1.7%** | - | 0.2% |
| Pedestrians | - | - | - | - | 77 | - | - | - | - | 35 | - | - | - | - | 8 | |
| % Pedestrians | - | - | - | - | 97.5% | - | - | - | - | 100% | - | - | - | - | 100% | - |
| Bicycles on Crosswalk | - | - | - | - | 2 | - | - | - | - | 0 | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | 2.5% | - | - | - | - | 0% | - | - | - | - | 0% | - |

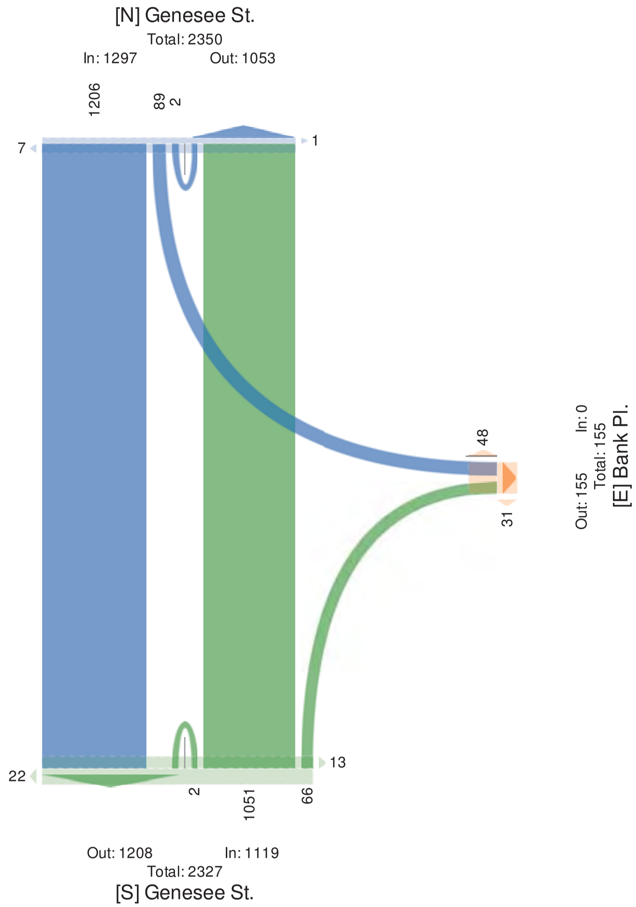
*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn



Revised A - 157

**26. Genesee St. and Bank Pl. - TMC**
Thu Jul 19, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549126, Location: 43.100182, -75.233485, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US






**26. Genesee St. and Bank Pl. - TMC**
Thu Jul 19, 2018
Forced Peak (7:45AM - 8:45AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549126, Location: 43.100182, -75.233485, Site Code: Utica, New York

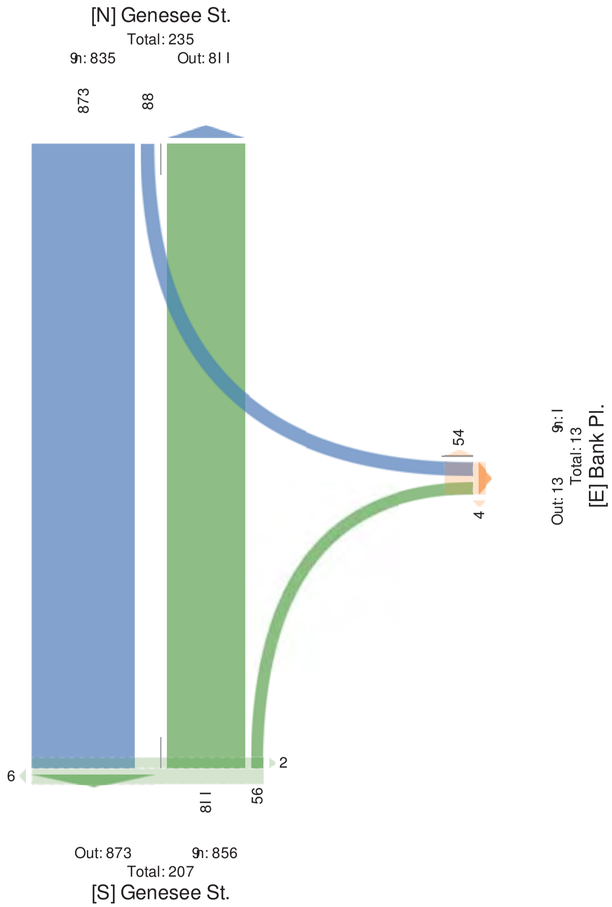
Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Bank Pl. | | | | | Genesee St. | | | | | Genesee St. | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Westbound | | | | | Northbound | | | | | Southbound | | | | | |
| Time | L | R | U | App | Ped* | T | R | U | App | Ped* | L | T | U | App | Ped* | Int |
| 2018-07-19 7:45AM | 0 | 0 | 0 | **2** | 2 | 47 | 3 | 0 | **52** | 1 | 5 | 70 | 0 | **15** | 0 | **745** |
| 8:00AM | 0 | 0 | 0 | **2** | 2 | 46 | 2 | 0 | **80** | 0 | 6 | 77 | 0 | **03** | 0 | **737** |
| 8:15AM | 0 | 0 | 0 | **2** | 7 | 56 | 6 | 0 | **64** | 5 | 7 | 57 | 0 | **68** | 0 | **746** |
| 8:30AM | 0 | 0 | 0 | **2** | 9 | 51 | 6 | 0 | **51** | 5 | 4 | 65 | 0 | **69** | 0 | **746** |
| **Total** | 0 | 0 | 0 | 2 | 20 | 200 | 17 | 0 | 471 | 11 | 22 | 269 | 0 | 497 | 0 | 520 |
| **% Approach** | 0% | 0% | 0% | - | - | 92.2% | 7.8% | 0% | - | - | 7.6% | 92.4% | 0% | - | - | - |
| **% Total** | 0% | 0% | 0% | **2%** | - | 39.4% | 3.3% | 0% | **84.1%** | - | 4.3% | 53.0% | 0% | **51.3%** | - | - |
| **PHF** | - | - | - | - | - | 0.893 | 0.708 | - | **2.015** | - | 0.786 | 0.873 | - | **2.011** | - | 0.969 |
| **Lights** | 0 | 0 | 0 | **2** | - | 187 | 17 | 0 | **428** | - | 22 | 246 | 0 | **460** | - | 472 |
| **% Lights** | 0% | 0% | 0% | - | - | 93.5% | 100% | 0% | **98.2%** | - | 100% | 91.4% | 0% | **94.7%** | - | 92.9% |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 0 | 0 | **2** | - | 4 | 0 | 0 | **8** | - | 0 | 16 | 0 | **76** | - | 20 |
| **% Articulated Trucks and Single-Unit Trucks** | 0% | 0% | 0% | - | - | 2.0% | 0% | 0% | **7.0%** | - | 0% | 5.9% | 0% | **5.5%** | - | 3.9% |
| **Buses** | 0 | 0 | 0 | **2** | - | 9 | 0 | 0 | **9** | - | 0 | 7 | 0 | **1** | - | 16 |
| **% Buses** | 0% | 0% | 0% | - | - | 4.5% | 0% | 0% | **8.7%** | - | 0% | 2.6% | 0% | **4.8%** | - | 3.1% |
| **Bicycles on Road** | 0 | 0 | 0 | **2** | - | 0 | 0 | 0 | **2** | - | 0 | 0 | 0 | **2** | - | 0 |
| **% Bicycles on Road** | 0% | 0% | 0% | - | - | 0% | 0% | 0% | **2%** | - | 0% | 0% | 0% | **2%** | - | 0% |
| Pedestrians | - | - | - | - | 20 | - | - | - | - | 11 | - | - | - | - | 0 | |
| % Pedestrians | - | - | - | - | 100% | - | - | - | - | 100% | - | - | - | - | - | - |
| Bicycles on Crosswalk | - | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | 0% | - | - | - | - | 0% | - | - | - | - | - | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

**26. Genesee St. and Bank Pl. - TMC**
Thu Jul 19, 2018
FLengt ( g7AM4P6) C a84P6) C s
) lli l7rrgr MdchSr, ) eShul7Sgt TeunAr 7Ut BdUklgay UdSTeunAr, ourgr, ( gt grSd7Ur, odRnlgr LUwL7t, odRnlgr LUi eLrrv7lAs
) ll C LmgI gUSr
D 46P9125, cLn7SdLU4P3.100182, a-6.233P86, BdSg i Lt g4y Sh7, Ngv YLeA

( eLmd gt bR4TedBS7Sg Te7ffdh
: 7S7, DUn.
18P o7Age wL7t,
i L7Sgrmdlg, ( ) , 19320, y B






**26. Genesee St. and Bank Pl. - TMC**
Thu Jul 19, 2018
AM Peak (8AM - 9AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549126, Location: 43.100182, -75.233485, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg<br>Direction | Bank Pl.<br>Westbound | | | | | Genesee St.<br>Northbound | | | | | Genesee St.<br>Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | L | R | U | **App** | Ped* | T | R | U | **App** | Ped* | L | T | U | **App** | Ped* | **Int** |
| 2018-07-19 8:00AM | 0 | 0 | 0 | **2** | 2 | 46 | 2 | 0 | **51** | 0 | 6 | 77 | 0 | **17** | 0 | **474** |
| 8:15AM | 0 | 0 | 0 | **2** | 7 | 56 | 6 | 0 | **80** | 5 | 7 | 57 | 0 | **85** | 0 | **408** |
| 8:30AM | 0 | 0 | 0 | **2** | 9 | 51 | 6 | 0 | **36** | 5 | 4 | 65 | 0 | **89** | 0 | **408** |
| 8:45AM | 0 | 0 | 0 | **2** | 5 | 67 | 3 | 1 | **64** | 5 | 9 | 76 | 0 | **13** | 2 | **438** |
| **Total** | 0 | 0 | 0 | **2** | 23 | 220 | 17 | 1 | **071** | 15 | 26 | 275 | 0 | **724** | 2 | **379** |
| **% Approach** | 0% | 0% | 0% | - | - | 92.4% | 7.1% | 0.4% | - | - | 8.6% | 91.4% | 0% | - | - | - |
| **% Total** | 0% | 0% | 0% | **2%** | - | 40.8% | 3.2% | 0.2% | **55.0%** | - | 4.8% | 51.0% | 0% | **33.1%** | - | - |
| **PHF** | - | - | - | - | - | 0.821 | 0.708 | 0.250 | **2.171** | - | 0.722 | 0.893 | - | **2.113** | - | 0.864 |
| **Lights** | 0 | 0 | 0 | **2** | - | 209 | 17 | 1 | **006** | - | 26 | 254 | 0 | **012** | - | 507 |
| **% Lights** | 0% | 0% | 0% | - | - | 95.0% | 100% | 100% | **93.5%** | - | 100% | 92.4% | 0% | **97.2%** | - | 94.1% |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 0 | 0 | **2** | - | 2 | 0 | 0 | **0** | - | 0 | 13 | 0 | **47** | - | 15 |
| **% Articulated Trucks and Single-Unit Trucks** | 0% | 0% | 0% | - | - | 0.9% | 0% | 0% | **2.1%** | - | 0% | 4.7% | 0% | **5.7%** | - | 2.8% |
| **Buses** | 0 | 0 | 0 | **2** | - | 9 | 0 | 0 | **9** | - | 0 | 8 | 0 | **1** | - | 17 |
| **% Buses** | 0% | 0% | 0% | - | - | 4.1% | 0% | 0% | **7.1%** | - | 0% | 2.9% | 0% | **0.6%** | - | 3.2% |
| **Bicycles on Road** | 0 | 0 | 0 | **2** | - | 0 | 0 | 0 | **2** | - | 0 | 0 | 0 | **2** | - | 0 |
| **% Bicycles on Road** | 0% | 0% | 0% | - | - | 0% | 0% | 0% | **2%** | - | 0% | 0% | 0% | **2%** | - | 0% |
| Pedestrians | - | - | - | - | 21 | - | - | - | - | 15 | - | - | - | - | 2 | |
| % Pedestrians | - | - | - | - | 91.3% | - | - | - | - | 100% | - | - | - | - | 100% | - |
| Bicycles on Crosswalk | - | - | - | - | 2 | - | - | - | - | 0 | - | - | - | - | 0 | |
| % Bicycles on Crosswalk | - | - | - | - | 8.7% | - | - | - | - | 0% | - | - | - | - | 0% | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn



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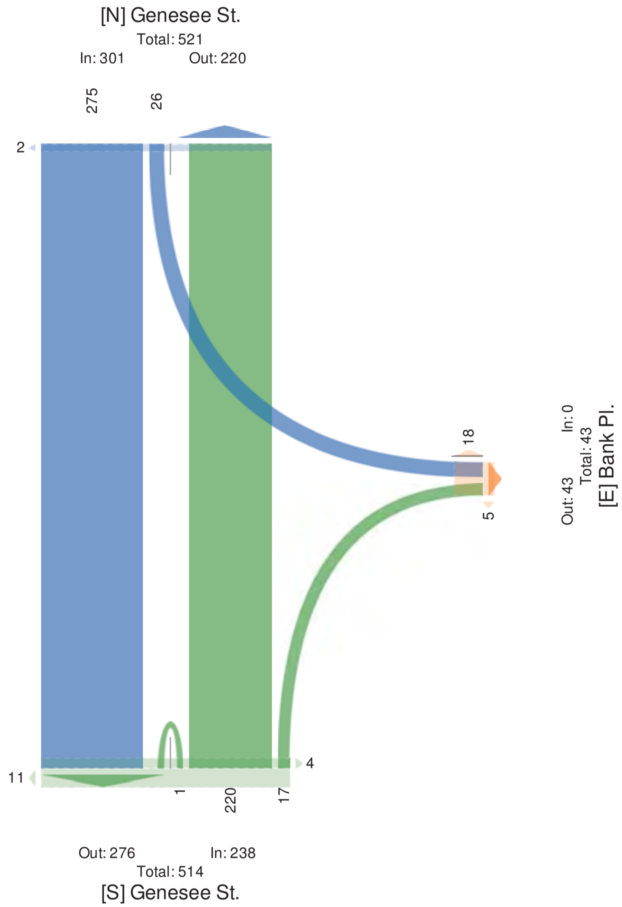
## 26. Genesee St. and Bank Pl. - TMC

Thu Jul 19, 2018
AM Peak (8AM 79AM:
All 4 la55e5 (- )Chs5, ALs)i ulaseg TLui k5 at g r )t Cle7c t )s TLui k5, du5e5, Pege5sL)at 5, d)i ni le5 St USag, d)i ni le5 St 4 LS55Balk:
All MSyeo et s5
Rwvml 912D, - Si as)St vI 63100182, 7. m3266I 8m, r )se 4 Sgevc s)i a, NeB YSLk

PLSy)geg bnvTL)7r sase TLaff)i
wasa, R i 3
18I dakeLUSag,
4 Sase5y)lle, PA, 19620, c r






## 26. Genesee St. and Bank Pl. - TMC

Thu Jul 19, 2018
PM Peak (4PM : 5PM- : ) Oevall Peak r Huv
o ll AlaCCeC(s Li hgC, o vglt ulagec TvutkCadc nLdi le:S dIg TvutkC, UuCeC, PeceCgvladC, ULt Bt leC Hd y Hac, ULt Bt leCHd AvHCCRalk-
o ll MHOewedgC
ml D549123, sHt aglHdD4. 7100182, :N572. . 485, nLge AHceDS glt a, YeR b Hvk

PvHOlcec f BDTvL:ngage TvaGlt
I aga, mdt 7
184 Uakev y Hac,
AHageCOllle, Po, 19. 20, Sn

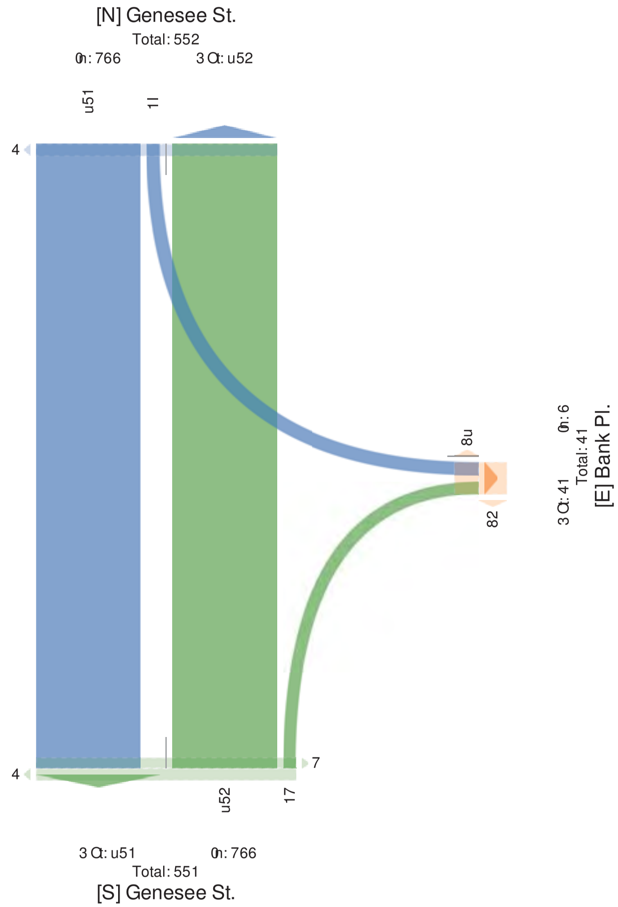
| s ei I lvet glHd | Uadk Pl7 * eCgf Hudc | | | | | WedeCee ng7 YHvghf Hudc | | | | | WedeCee ng7 nHughf Hudc | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TLwe | s | y | S | **App** | Pec6 | T | y | S | **App** | Pec6 | s | T | S | **App** | Pec6 | **Int** |
| 2018:0N:19 4D0PM | 0 | 0 | 0 | **0** | 15 | 94 | 5 | 0 | **99** | 2 | 8 | 104 | 0 | **112** | 2 | **211** |
| 4D5PM | 0 | 0 | 0 | **0** | 2 | 91 | N | 0 | **98** | 2 | N | 10. | 0 | **110** | 2 | **208** |
| 4D0PM | 0 | 0 | 0 | **0** | 8 | 83 | 8 | 0 | **94** | . | N | 81 | 0 | **88** | 1 | **182** |
| 4D45PM | 0 | 0 | 0 | **0** | 4 | 105 | 4 | 0 | **109** | 2 | 3 | 84 | 0 | **90** | 0 | **199** |
| **Total** | 0 | 0 | 0 | **0** | 29 | . N3 | 24 | 0 | **400** | 9 | 28 | . N2 | 0 | **400** | 5 | **800** |
| **% Approach** | 0% | 0% | 0% | - | : | 9470% | 370% | 0% | - | : | N70% | 9. 70% | 0% | - | : | : |
| **% Total** | 0% | 0% | 0% | **0%** | : | 4N70% | . 70% | 0% | **50.0%** | : | . 75% | 4375% | 0% | **50.0%** | : | : |
| **PHF** | : | : | : | - | : | 07895 | 07N50 | : | **0.917** | : | 078N5 | 07894 | : | **0.893** | : | 07948 |
| **Lights** | 0 | 0 | 0 | **0** | : | . 33 | 2. | 0 | **389** | : | 2N | . 32 | 0 | **389** | : | NN8 |
| **% Lights** | 0% | 0% | 0% | - | : | 9N7. % | 9578% | 0% | **97.3%** | : | 9374% | 9N7. % | 0% | **97.3%** | : | 9N7. % |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 0 | 0 | **0** | : | 2 | 0 | 0 | **2** | : | 0 | . | 0 | **3** | : | 5 |
| **% Articulated Trucks and Single-Unit Trucks** | 0% | 0% | 0% | - | : | 075% | 0% | 0% | **0.5%** | : | 0% | 078% | 0% | **0.8%** | : | 073% |
| **Buses** | 0 | 0 | 0 | **0** | : | 8 | 0 | 0 | **8** | : | 0 | N | 0 | **7** | : | 15 |
| **% Buses** | 0% | 0% | 0% | - | : | 271% | 0% | 0% | **2.0%** | : | 0% | 179% | 0% | **1.8%** | : | 179% |
| **Bicycles on Road** | 0 | 0 | 0 | **0** | : | 0 | 1 | 0 | **1** | : | 1 | 0 | 0 | **1** | : | 2 |
| **% Bicycles on Road** | 0% | 0% | 0% | - | : | 0% | 472% | 0% | **0.3%** | : | . 73% | 0% | 0% | **0.3%** | : | 07. % |
| PeceCgvladC | : | : | : | : | 29 | : | : | : | : | 9 | : | : | : | : | 5 | |
| % PeceCgvladC | : | : | : | : | 100% | : | : | : | : | 100% | : | : | : | : | 100% | : |
| ULt Bt leC Hd AvHCCRalk | : | : | : | : | 0 | : | : | : | : | 0 | : | : | : | : | 0 | |
| % ULt Bt leC Hd AvHCCRalk | : | : | : | : | 0% | : | : | : | : | 0% | : | : | : | : | 0% | : |

[6] PeceCgvladCadc ULt Bt leCHd AvHCCRalk7s Ds eCg, y Dy Li. hg TDThvu, S DS:Tuvd

## 26. Genesee St. and Bank Pl. - TMC

Thu Jul 19, 2018
PM Peak (4PM : 5PM- : ) Oevall Peak r Huv
o ll AlaCCeC(s Li hgC, o vgLulagec Tvut kCadc nLdi le:SdlgTvut kC, UuCeC, PeceCgyadC, ULt Bt leC
Hd y Hac, ULt Bt leCHd AvHCCRalk-
o ll MHOewedgC
ni D549126, s Ht agHHD43.100182, :75.233485, n lge AHceDS gLt a, NeR YHvk

PvHOLcec bBDTvLngage TvaffLt
I aga, nLt .
184 Uakevy Hac,
AHageCOLle, Po , 19320, Sn






## 27. Genesee St. and Court St. - TMC

Thu Jul 19, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549127, Location: 43.099688, -75.234863, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Court St. | | | | | | | Hopper St. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Eastbound | | | | | | | Westbound | | | | | | |
| Time | L | T | R | U | RR | App | Ped* | L | T | R | U | RR | App | Ped* |
| 2018-07-19 7:00AM | 1 | 27 | 4 | 0 | 0 | **15** | 3 | 4 | 11 | 1 | 0 | 0 | **72** | 0 |
| 7:15AM | 0 | 40 | 4 | 0 | 2 | **02** | 0 | 1 | 38 | 3 | 0 | 0 | **05** | 3 |
| 7:30AM | 3 | 45 | 3 | 0 | 1 | **45** | 3 | 0 | 49 | 3 | 0 | 0 | **45** | 3 |
| 7:45AM | 2 | 66 | 18 | 0 | 1 | **39** | 3 | 0 | 47 | 6 | 0 | 2 | **44** | 2 |
| Hourly Total | 6 | 178 | 29 | 0 | 4 | **579** | 9 | 5 | 145 | 13 | 0 | 2 | **724** | 8 |
| 8:00AM | 1 | 70 | 9 | 0 | 4 | **30** | 3 | 1 | 30 | 2 | 0 | 0 | **11** | 3 |
| 8:15AM | 0 | 94 | 14 | 0 | 3 | **777** | 2 | 0 | 45 | 9 | 0 | 0 | **40** | 4 |
| 8:30AM | 1 | 77 | 10 | 0 | 6 | **80** | 2 | 0 | 51 | 6 | 0 | 0 | **49** | 6 |
| 8:45AM | 1 | 77 | 11 | 0 | 1 | **86** | 6 | 0 | 55 | 8 | 0 | 2 | **24** | 7 |
| Hourly Total | 3 | 318 | 44 | 0 | 14 | **198** | 13 | 1 | 181 | 25 | 0 | 2 | **568** | 20 |
| 4:00PM | 1 | 64 | 4 | 0 | 2 | **97** | 9 | 1 | 117 | 15 | 0 | 5 | **713** | 7 |
| 4:15PM | 1 | 57 | 13 | 0 | 2 | **91** | 5 | 1 | 101 | 12 | 0 | 0 | **770** | 3 |
| 4:30PM | 1 | 84 | 15 | 0 | 0 | **766** | 7 | 0 | 97 | 12 | 0 | 2 | **777** | 11 |
| 4:45PM | 1 | 54 | 10 | 0 | 3 | **23** | 3 | 0 | 70 | 11 | 0 | 5 | **32** | 1 |
| Hourly Total | 4 | 259 | 42 | 0 | 7 | **175** | 24 | 2 | 385 | 50 | 0 | 12 | **008** | 22 |
| 5:00PM | 2 | 79 | 9 | 0 | 2 | **85** | 7 | 0 | 68 | 9 | 0 | 2 | **98** | 1 |
| 5:15PM | 3 | 46 | 7 | 0 | 2 | **43** | 4 | 1 | 45 | 6 | 0 | 3 | **44** | 19 |
| 5:30PM | 4 | 47 | 15 | 0 | 5 | **97** | 5 | 0 | 48 | 3 | 0 | 0 | **47** | 1 |
| 5:45PM | 6 | 57 | 4 | 0 | 1 | **23** | 7 | 0 | 53 | 13 | 0 | 3 | **28** | 8 |
| Hourly Total | 15 | 229 | 35 | 0 | 10 | **538** | 23 | 1 | 214 | 31 | 0 | 8 | **540** | 29 |
| **Total** | 28 | 984 | 150 | 0 | 35 | **7789** | 69 | 9 | 925 | 119 | 0 | 24 | **7699** | 79 |
| **% Approach** | 2.3% | 82.2% | 12.5% | 0% | 2.9% | - | - | 0.8% | 85.9% | 11.0% | 0% | 2.2% | - | - |
| **% Total** | 0.6% | 20.7% | 3.2% | 0% | 0.7% | **54.5%** | - | 0.2% | 19.5% | 2.5% | 0% | 0.5% | **55.9%** | - |
| **Lights** | 28 | 968 | 146 | 0 | 33 | **7794** | - | 7 | 909 | 114 | 0 | 24 | **7640** | - |
| **% Lights** | 100% | 98.4% | 97.3% | 0% | 94.3% | **83.5%** | - | 77.8% | 98.3% | 95.8% | 0% | 100% | **89.8%** | - |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 7 | 4 | 0 | 2 | **71** | - | 1 | 11 | 1 | 0 | 0 | **71** | - |
| **% Articulated Trucks and Single-Unit Trucks** | 0% | 0.7% | 2.7% | 0% | 5.7% | **7.7%** | - | 11.1% | 1.2% | 0.8% | 0% | 0% | **7.5%** | - |
| **Buses** | 0 | 8 | 0 | 0 | 0 | **3** | - | 1 | 3 | 4 | 0 | 0 | **3** | - |
| **% Buses** | 0% | 0.8% | 0% | 0% | 0% | **6.9%** | - | 11.1% | 0.3% | 3.4% | 0% | 0% | **6.9%** | - |
| **Bicycles on Road** | 0 | 1 | 0 | 0 | 0 | **7** | - | 0 | 2 | 0 | 0 | 0 | **5** | - |
| **% Bicycles on Road** | 0% | 0.1% | 0% | 0% | 0% | **6.7%** | - | 0% | 0.2% | 0% | 0% | 0% | **6.5%** | - |
| Pedestrians | - | - | - | - | - | - | 68 | - | - | - | - | - | - | 74 |
| % Pedestrians | - | - | - | - | - | - | 98.6% | - | - | - | - | - | - | 93.7% |
| Bicycles on Crosswalk | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 5 |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 1.4% | - | - | - | - | - | - | 6.3% |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

## 27. Genesee St. and Court St. - TMC

Thu Jul 19, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549127, Location: 43.099688, -75.234863, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg / Direction | Genesee St. Northbound | | | | | | | Genesee St. Southbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | L | T | R | U | RR | App | Ped* | L | T | R | U | RR | App | Ped* | Int |
| 2018-07-19 7:00AM | 2 | 32 | 1 | 0 | 0 | **16** | 1 | 0 | 34 | 2 | 0 | 2 | **12** | 4 | **858** |
| 7:15AM | 7 | 39 | 0 | 0 | 0 | **43** | 3 | 2 | 46 | 5 | 0 | 1 | **64** | 1 | **822** |
| 7:30AM | 5 | 36 | 2 | 0 | 0 | **41** | 0 | 2 | 50 | 10 | 0 | 3 | **36** | 2 | **585** |
| 7:45AM | 3 | 53 | 6 | 1 | 0 | **31** | 5 | 2 | 70 | 5 | 0 | 0 | **99** | 1 | **525** |
| Hourly Total | 17 | 160 | 9 | 1 | 0 | **829** | 9 | 6 | 200 | 22 | 0 | 6 | **514** | 8 | **271** |
| 8:00AM | 2 | 57 | 2 | 0 | 2 | **31** | 1 | 3 | 59 | 10 | 0 | 2 | **94** | 0 | **564** |
| 8:15AM | 3 | 69 | 8 | 0 | 0 | **27** | 5 | 1 | 52 | 4 | 0 | 1 | **62** | 2 | **171** |
| 8:30AM | 2 | 73 | 4 | 0 | 0 | **90** | 1 | 0 | 55 | 9 | 0 | 1 | **36** | 1 | **506** |
| 8:45AM | 3 | 72 | 3 | 0 | 0 | **92** | 3 | 3 | 65 | 6 | 0 | 3 | **99** | 2 | **187** |
| Hourly Total | 10 | 271 | 17 | 0 | 2 | **177** | 10 | 7 | 231 | 29 | 0 | 7 | **594** | 5 | **8835** |
| 4:00PM | 9 | 96 | 3 | 0 | 0 | **872** | 2 | 5 | 97 | 11 | 0 | 2 | **886** | 1 | **415** |
| 4:15PM | 3 | 96 | 3 | 0 | 0 | **875** | 8 | 3 | 98 | 8 | 0 | 3 | **885** | 2 | **478** |
| 4:30PM | 8 | 87 | 3 | 0 | 0 | **02** | 4 | 0 | 80 | 5 | 0 | 1 | **23** | 1 | **106** |
| 4:45PM | 5 | 93 | 4 | 0 | 0 | **875** | 3 | 2 | 79 | 9 | 0 | 2 | **05** | 0 | **142** |
| Hourly Total | 25 | 372 | 13 | 0 | 0 | **487** | 17 | 10 | 354 | 33 | 0 | 8 | **476** | 4 | **8693** |
| 5:00PM | 4 | 92 | 3 | 1 | 0 | **877** | 2 | 3 | 108 | 7 | 0 | 1 | **880** | 0 | **107** |
| 5:15PM | 4 | 85 | 4 | 0 | 1 | **04** | 6 | 3 | 61 | 4 | 0 | 1 | **30** | 11 | **593** |
| 5:30PM | 2 | 60 | 0 | 0 | 0 | **35** | 5 | 1 | 62 | 11 | 0 | 0 | **94** | 0 | **562** |
| 5:45PM | 2 | 62 | 1 | 0 | 1 | **33** | 5 | 1 | 68 | 11 | 0 | 0 | **27** | 2 | **521** |
| Hourly Total | 12 | 299 | 8 | 1 | 2 | **155** | 18 | 8 | 299 | 33 | 0 | 2 | **145** | 13 | **8579** |
| **Total** | 64 | 1102 | 47 | 2 | 4 | **8580** | 54 | 31 | 1084 | 117 | 0 | 23 | **8566** | 30 | **4942** |
| **% Approach** | 5.3% | 90.4% | 3.9% | 0.2% | 0.3% | - | - | 2.5% | 86.4% | 9.3% | 0% | 1.8% | - | - | - |
| **% Total** | 1.3% | 23.2% | 1.0% | 0% | 0.1% | **56.9%** | - | 0.7% | 22.8% | 2.5% | 0% | 0.5% | **53.4%** | - | - |
| **Lights** | 63 | 1062 | 45 | 2 | 4 | **8893** | - | 25 | 1038 | 113 | 0 | 21 | **8809** | - | 4602 |
| **% Lights** | 98.4% | 96.4% | 95.7% | 100% | 100% | **03.6%** | - | 80.6% | 95.8% | 96.6% | 0% | 91.3% | **06.4%** | - | 96.9% |
| **Articulated Trucks and Single-Unit Trucks** | 1 | 13 | 0 | 0 | 0 | **84** | - | 1 | 21 | 4 | 0 | 1 | **59** | - | 67 |
| **% Articulated Trucks and Single-Unit Trucks** | 1.6% | 1.2% | 0% | 0% | 0% | **8.8%** | - | 3.2% | 1.9% | 3.4% | 0% | 4.3% | **5.5%** | - | 1.4% |
| **Buses** | 0 | 27 | 2 | 0 | 0 | **50** | - | 5 | 23 | 0 | 0 | 0 | **52** | - | 73 |
| **% Buses** | 0% | 2.5% | 4.3% | 0% | 0% | **5.4%** | - | 16.1% | 2.1% | 0% | 0% | 0% | **5.5%** | - | 1.5% |
| **Bicycles on Road** | 0 | 0 | 0 | 0 | 0 | **7** | - | 0 | 2 | 0 | 0 | 1 | **1** | - | 6 |
| **% Bicycles on Road** | 0% | 0% | 0% | 0% | 0% | **7%** | - | 0% | 0.2% | 0% | 0% | 4.3% | **7.5%** | - | 0.1% |
| Pedestrians | - | - | - | - | - | - | 48 | - | - | - | - | - | - | 27 | |
| % Pedestrians | - | - | - | - | - | - | 88.9% | - | - | - | - | - | - | 90.0% | - |
| Bicycles on Crosswalk | - | - | - | - | - | - | 6 | - | - | - | - | - | - | 3 | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 11.1% | - | - | - | - | - | - | 10.0% | - |

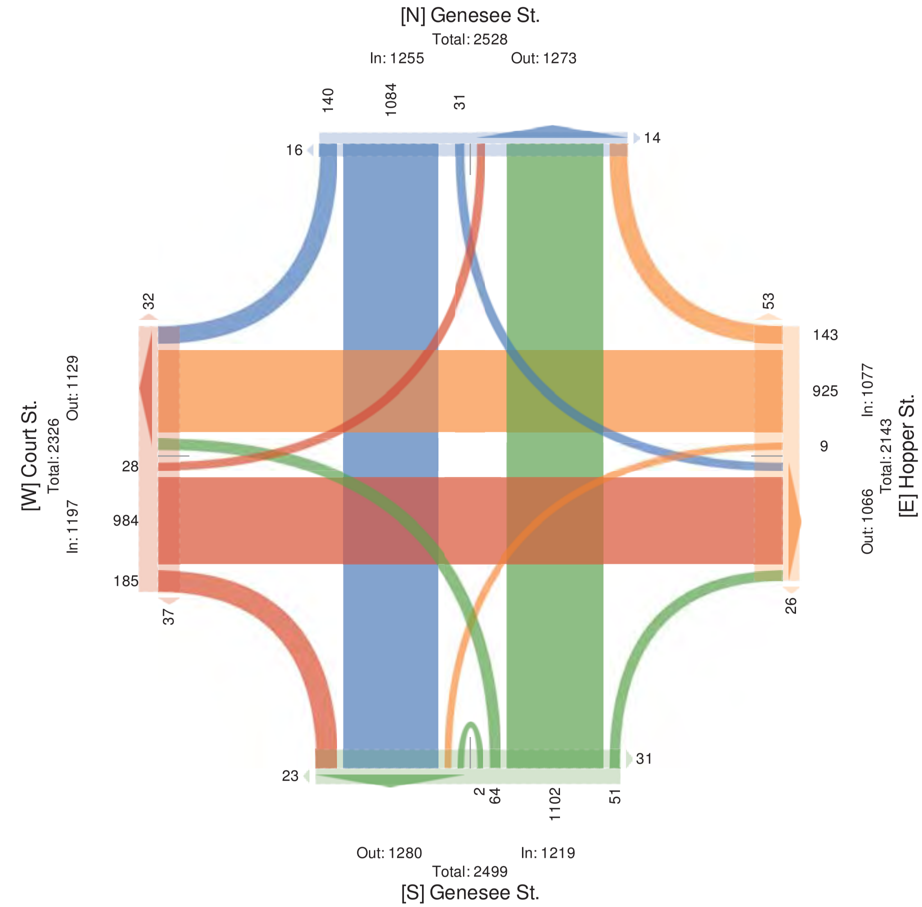
*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn



## 27. Genesee St. and Court St. - TMC

Thu Jul 19, 2018
Full Length (7AM-9AM, 4PM-6PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549127, Location: 43.099688, -75.234863, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US



## 27. Genesee St. and Court St. - TMC

Thu Jul 19, 2018
FLengt ( g7AM4P6) C a84P6) Cs
) lli l7rrgr MdkhSr, ) eSchul7Sgt TeunAr 7Ut BdUklgay UdSTeunAr, ourgr, ( gt gr Sed7Ur, odhRnlgr LUwL7t, odhRnlgr LUi eLrrv 7lAs
) ll C LmgI gUSr
D 46P912-, cLn7SdLU4P53099. 88, a-6325P8. 5, BdSg i Lt g4y Sh7, Ngv YLeA

( eLmd gt bR4TedaBS7Sg Te7ffdh
: 7S7, DUh3
18P o7Age wL7t,
i L7Sgrmdlg, ( ) , 19520, y B

| cgk<br>: degnSdLU | i LueSBS3<br>E7r SbLuUt | | | | | | | HLppge BS3<br>Wgr SbLuUt | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tdl g | c | T | w | y | ww | **App** | ( gt * | c | T | w | y | ww | **App** | ( gt * |
| 2018a0-a19 - 4P6) C | 2 | . . | 18 | 0 | 1 | **24** | 5 | 0 | P- | . | 0 | 2 | **00** | 2 |
| 8400) C | 1 | - 0 | 9 | 0 | P | **23** | 5 | 1 | 50 | 2 | 0 | 0 | **77** | 5 |
| 8416) C | 0 | 9P | 1P | 0 | 5 | **999** | 2 | 0 | P6 | 9 | 0 | 0 | **03** | P |
| 8450) C | 1 | - - | 10 | 0 | . | **13** | 2 | 0 | 61 | . | 0 | 0 | **04** | . |
| **5 6Tbt** | P | 50- | 61 | 0 | 1P | **74a** | 10 | 1 | 1- 5 | 25 | 0 | 2 | **911** | 16 |
| **l %App 6orc** | 131% | 813 % | 153 % | 0% | 53- % | **h** | a | 036% | 8. 39% | 113 % | 0% | 130% | **h** | a |
| **l %56Tbt** | 03P% | 2- 31% | P36% | 0% | 132% | **77-8l** | a | 031% | 1635% | 230% | 0% | 032% | **94-0l** | a |
| **. PH** | 03600 | 0381. | 03-08 | a | 03685 | **F-234** | a | 03260 | 038P8 | 03 59 | a | 03260 | **F-247** | a |
| **LigcTs** | P | 501 | 60 | 0 | 12 | **7a4** | a | 1 | 1. . | 22 | 0 | 2 | **919** | a |
| **l %LigcTs** | 100% | 9830% | 9830% | 0% | 863- % | **14-al** | a | 100% | 9. 30% | 963- % | 0% | 100% | **1a-Fl** | a |
| **A TrutoTed% urks%nd%ingtelUniT% urks** | 0 | 5 | 1 | 0 | 2 | **a** | a | 0 | . | 1 | 0 | 0 | **4** | a |
| **l %A TrutoTed% urks%nd%ingtelUniT% urks** | 0% | 130% | 230% | 0% | 1P35% | **9-al** | a | 0% | 536% | P35% | 0% | 0% | **7-0l** | a |
| **Buses** | 0 | 5 | 0 | 0 | 0 | **7** | a | 0 | 1 | 0 | 0 | 0 | **9** | a |
| **l %Buses** | 0% | 130% | 0% | 0% | 0% | **F-2l** | a | 0% | 03 % | 0% | 0% | 0% | **F-0l** | a |
| **Biryrtes%n%R6od** | 0 | 0 | 0 | 0 | 0 | **F** | a | 0 | 0 | 0 | 0 | 0 | **F** | a |
| **l %Biryrtes%n%R6od** | 0% | 0% | 0% | 0% | 0% | **Fl** | a | 0% | 0% | 0% | 0% | 0% | **Fl** | a |
| ( gt gr Sed7Ur | a | a | a | a | a | a | 10 | a | a | a | a | a | a | 1P |
| % ( gt gr Sed7Ur | a | a | a | a | a | a | 100% | a | a | a | a | a | a | 9535% |
| odhRnlgr LUi eLrrv 7lA | a | a | a | a | a | a | 0 | a | a | a | a | a | a | 1 |
| % odhRnlgr LUi eLrrv 7lA | a | a | a | a | a | a | 0% | a | a | a | a | a | a | . 3- % |

*( gt gr Sed7Ur 7Ut odhRnlgr LUi eLrrv 7lA3c4cgfS, w4wdkhS, ww4wdkhSLUegt , T4Theu, y 4y aTueU



## 27. Genesee St. and Court St. - TMC

Thu Jul 19, 2018
Forced Peak (4M5) A C8M5) As
) ll Llaiiei (gtnhSi, ) rSculaSed Trucki aUd BtUnleGy UtSTrucki, Ruiei, Pedei SrtaUi, Rtcwclei oUvoad, Rtcwclei oULroiimalks
) ll AoIeDeUSi
:3 M5-9124, gocaStoUM. 7099N88, G4572. -8N. , BtSe LodeMy Stca, Yembork

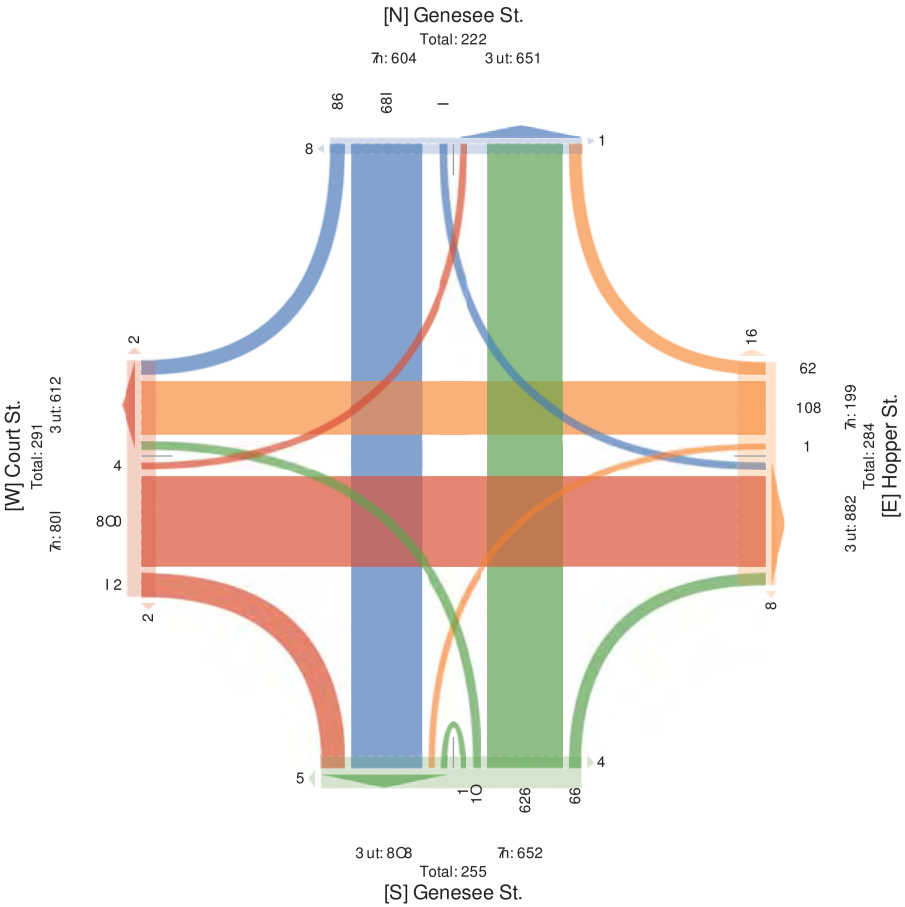
ProI tded f wMTrtCBSaSe TraGfc
3 aSa, :Uc7
18- Raker voad,
LoaSei Itlle, P) , 19. 20, y B

| gen<br>3 trecStoU | * eUeiee BS7<br>YorShf ouUd | | | | | | | * eUeiee BS7<br>BouShf ouUd | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TtDe | g | T | v | y | vv | **App** | Ped6 | g | T | v | y | vv | **App** | Ped6 | **Int** |
| 2018C04C19 4M5) A | . | 5. | N | 1 | 0 | **25** | 5 | 2 | 40 | 5 | 0 | 0 | **11** | 1 | **747** |
| 8M0) A | 2 | 54 | 2 | 0 | 2 | **25** | 1 | . | 59 | 10 | 0 | 2 | **18** | 0 | **708** |
| 8M5) A | . | N9 | 8 | 0 | 0 | **43** | 5 | 1 | 52 | - | 0 | 1 | **04** | 2 | **535** |
| 8M0) A | 2 | 4. | - | 0 | 0 | **16** | 1 | 0 | 55 | 9 | 0 | 1 | **20** | 1 | **760** |
| **9 Ttoa** | 10 | 252 | 20 | 1 | 2 | **740** | 12 | N | 2. N | 28 | 0 | - | **718** | - | **1158** |
| **% Appr ıoch** | . .5% | 887- % | 470% | 07- % | 074% | - | C | 272% | 8N71% | 1072% | 0% | 175% | - | C | C |
| **% 9 Ttoa** | 079% | 2272% | 178% | 071% | 072% | **70.1%** | C | 075% | 2078% | 275% | 0% | 07- % | **78.7%** | C | C |
| **PHF** | 078. . | 078N. | 07N25 | 07250 | 07250 | **3.461** | C | 07500 | 078- . | 07400 | C07500 | | **3.463** | C | 079. N |
| **Lights** | 10 | 2- 1 | 19 | 1 | 2 | **715** | C | 5 | 21N | 2N | 0 | - | **701** | C | 1082 |
| **% Lights** | 100% | 957N% | 9570% | 100% | 100% | **60.4%** | C | 8. 7. % | 9175% | 9279% | 0% | 100% | **61.2%** | C | 957- % |
| **Articuaoted 9 rucks ond Singæ-Unit 9 rucks** | 0 | 2 | 0 | 0 | 0 | **7** | C | 0 | 1- | 2 | 0 | 0 | **12** | C | . 1 |
| **% Articuaoted 9 rucks ond Singæ-Unit 9 rucks** | 0% | 078% | 0% | 0% | 0% | **3.1%** | C | 0% | 579% | 471% | 0% | 0% | **0.4%** | C | 274% |
| **Buses** | 0 | 9 | 1 | 0 | 0 | **13** | C | 1 | N | 0 | 0 | 0 | **1** | C | 21 |
| **% Buses** | 0% | . 7N% | 570% | 0% | 0% | **5.0%** | C | 1N74% | 275% | 0% | 0% | 0% | **7.2%** | C | 179% |
| **Bicycæs Tn RTod** | 0 | 0 | 0 | 0 | 0 | **3** | C | 0 | 0 | 0 | 0 | 0 | **3** | C | 0 |
| **% Bicycæs Tn RTod** | 0% | 0% | 0% | 0% | 0% | **3%** | C | 0% | 0% | 0% | 0% | 0% | **3%** | C | 0% |
| Pedei SrtaUi | C | C | C | C | C | C | 11 | C | C | C | C | C | C | 1 | |
| % Pedei SrtaUi | C | C | C | C | C | C | 9174% | C | C | C | C | C | C | 2570% | C |
| Rtcwclei oULroiimalk | C | C | C | C | C | C | 1 | C | C | C | C | C | C | . | |
| % Rtcwclei oULroiimalk | C | C | C | C | C | C | 87. % | C | C | C | C | C | C | 4570% | C |

[6]Pedei SrtaUi aUd Rtcwclei oULroiimalk7gMgeGS, v MrtnhS, v v MrtnhSoUred, TMThru, y My CTurU

**27. Genesee St. and Court St. - TMC**
Thu Jul 19, 2018
FLengt ( g7AM4P6) C a84P6) C s
) lli l7rrgr MdkhS̈r, ) eShul7Sgt TeunAr 7Ut BdUklgay UäSTeunAr, ourgr, ( gt grSed7Ur, odhRnlgr
LUwL7t , odhRnlgr LUi eLrrv 7lAs
) ll C LmgI gUSr
D 46P912- , cLn7SäLU4P53099. 88, a-6325P8. 5, BdSg i Lt g4y Sih7, Ngv YLeA

( eLmd gt bR4TedBS7Sg Te7ffdn
: 7S7, Dun3
18P o7Age wL7t ,
i L7Sgrmdlg, ( ) , 19520, y B






**27. Genesee St. and Court St. - TMC**
Thu Jul 19, 2018
AM Peak (8AM - 9AM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549127, Location: 43.099688, -75.234863, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Court St. | | | | | | | Hopper St. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Eastbound | | | | | | | Westbound | | | | | | |
| Time | L | T | R | U | RR | **App** | Ped* | L | T | R | U | RR | **App** | Ped* |
| 2018-07-19 8:00AM | 1 | 70 | 9 | 0 | 4 | **24** | 3 | 1 | 30 | 2 | 0 | 0 | **00** | 3 |
| 8:15AM | 0 | 94 | 14 | 0 | 3 | **333** | 2 | 0 | 45 | 9 | 0 | 0 | **74** | 4 |
| 8:30AM | 1 | 77 | 10 | 0 | 6 | **94** | 2 | 0 | 51 | 6 | 0 | 0 | **71** | 6 |
| 8:45AM | 1 | 77 | 11 | 0 | 1 | **95** | 6 | 0 | 55 | 8 | 0 | 2 | **67** | 7 |
| **Total** | 3 | 318 | 44 | 0 | 14 | **019** | 13 | 1 | 181 | 25 | 0 | 2 | **%59** | 20 |
| **rAppcoah-** | 0.8% | 83.9% | 11.6% | 0% | 3.7% | **8** | - | 0.5% | 86.6% | 12.0% | 0% | 1.0% | **8** | - |
| **rTotal** | 0.3% | 27.4% | 3.8% | 0% | 1.2% | **0%6** | - | 0.1% | 15.6% | 2.2% | 0% | 0.2% | **32.5** | - |
| **PHF** | 0.750 | 0.846 | 0.786 | - | 0.583 | **5.274** | - | 0.250 | 0.823 | 0.694 | - | 0.250 | **5.254** | - |
| **Lig- ts** | 3 | 312 | 42 | 0 | 12 | **069** | - | 1 | 176 | 24 | 0 | 2 | **%50** | - |
| **rLig- ts** | 100% | 98.1% | 95.5% | 0% | 85.7% | **91.4** | - | 100% | 97.2% | 96.0% | 0% | 100% | **91.3** | - |
| **ActihulatedrTcuhksrandrSingle8UnitrTcuhks** | 0 | 3 | 2 | 0 | 2 | **1** | - | 0 | 4 | 1 | 0 | 0 | **7** | - |
| **rActihulatedrTcuhksrandrSingle8UnitrTcuhks** | 0% | 0.9% | 4.5% | 0% | 14.3% | **3.2** | - | 0% | 2.2% | 4.0% | 0% | 0% | **%4** | - |
| **Buses** | 0 | 3 | 0 | 0 | 0 | **0** | - | 0 | 1 | 0 | 0 | 0 | **3** | - |
| **rBuses** | 0% | 0.9% | 0% | 0% | 0% | **5.2** | - | 0% | 0.6% | 0% | 0% | 0% | **5.7** | - |
| **BihyhlesronrRoad** | 0 | 0 | 0 | 0 | 0 | **5** | - | 0 | 0 | 0 | 0 | 0 | **5** | - |
| **rBihyhlesronrRoad** | 0% | 0% | 0% | 0% | 0% | **5** | - | 0% | 0% | 0% | 0% | 0% | **5** | - |
| Pedestrians | - | - | - | - | - | - | 13 | - | - | - | - | - | - | 17 |
| % Pedestrians | - | - | - | - | - | - | 100% | - | - | - | - | - | - | 85.0% |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 3 |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 0% | - | - | - | - | - | - | 15.0% |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

## 27. Genesee St. and Court St. - TMC

Thu Jul 19, 2018
AM Peak (8AM 79AM:
All 3 la--e- () ChL, AiIgulalet Tiugk- art c Cs le7dr CTiugk-, nu-e-, Pet e-LiGr-, nGSgle-Ur BUat, nGSgle- Ur 3 iU--y alk:
All MUbeR er L
w mI D9125, ) UgalCUr mD4.099N88, 75I .24D8N4, c Ce 3 Ut emd Lga, Yey b Uik

PiUoCet f SmTi7c lale TiaGG
v ala, wr g.
18Dnakei BUat,
3 Uale-oCle, PA, 19420, d c

| ) es<br>v Ce gICUr | * er e-ee cL<br>YUiLhf Uur t | | | | | | | * er e-ee cL<br>cUuLhf Uur t | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCR e | ) | T | B | d | BB | App | Pet 6 | ) | T | B | d | BB | App | Pet 6 | Int |
| 2018705719 8m00AM | 2 | I 5 | 2 | 0 | 2 | **25** | 1 | 4 | I 9 | 10 | 0 | 2 | **17** | 0 | **487** |
| 8m1I AM | 4 | N9 | 8 | 0 | 0 | **03** | I | 1 | I 2 | D | 0 | 1 | **80** | 2 | **535** |
| 8m40AM | 2 | 54 | D | 0 | 0 | **16** | 1 | 0 | I I | 9 | 0 | 1 | **28** | 1 | **468** |
| 8mDI AM | 4 | 52 | 4 | 0 | 0 | **10** | 4 | 4 | NI | N | 0 | 4 | **11** | 2 | **593** |
| **Total** | 10 | 251 | 15 | 0 | 2 | **533** | 10 | 5 | 241 | 29 | 0 | 5 | **417** | I | **9924** |
| **% Approach** | 4.4% | 90.4% | I .5% | 0% | 0.5% | - | 7 | 2.N% | 8D.4% | 10.N% | 0% | 2.N% | - | 7 | 7 |
| **% Total** | 0.9% | 24.4% | 1.I % | 0% | 0.2% | **48.0%** | 7 | 0.N% | 19.9% | 2.I % | 0% | 0.N% | **45.2%** | 7 | 7 |
| **PHF** | 0.844 | 0.928 | 0.I 41 | 7 | 0.2I 0 | **3.650** | 7 | 0.I 84 | 0.888 | 0.52I | 7 | 0.I 84 | **3.063** | 7 | 0.945 |
| **Lights** | 10 | 2N2 | 1N | 0 | 2 | **463** | 7 | I | 21D | 25 | 0 | 5 | **485** | 7 | 111I |
| **% Lights** | 100% | 9N.5% | 9D.1% | 0% | 100% | **62.1%** | 7 | 51.D% | 92.N% | 94.1% | 0% | 100% | **64.5%** | 7 | 9N.0% |
| **Articulated Trucks and Single-Unit Trucks** | 0 | 1 | 0 | 0 | 0 | **9** | 7 | 0 | 11 | 2 | 0 | 0 | **95** | 7 | 2N |
| **% Articulated Trucks and Single-Unit Trucks** | 0% | 0.D% | 0% | 0% | 0% | **3.5%** | 7 | 0% | D.8% | N.9% | 0% | 0% | **7.1%** | 7 | 2.2% |
| **Buses** | 0 | 8 | 1 | 0 | 0 | **6** | 7 | 2 | N | 0 | 0 | 0 | **0** | 7 | 21 |
| **% Buses** | 0% | 4.0% | I .9% | 0% | 0% | **5.3%** | 7 | 28.N% | 2.N% | 0% | 0% | 0% | **4.6%** | 7 | 1.8% |
| **Bicycles on Road** | 0 | 0 | 0 | 0 | 0 | **3** | 7 | 0 | 0 | 0 | 0 | 0 | **3** | 7 | 0 |
| **% Bicycles on Road** | 0% | 0% | 0% | 0% | 0% | **3%** | 7 | 0% | 0% | 0% | 0% | 0% | **3%** | 7 | 0% |
| Pet e-LiGr- | 7 | 7 | 7 | 7 | 7 | 7 | 9 | 7 | 7 | 7 | 7 | 7 | 7 | 2 | |
| % Pet e-LiGr- | 7 | 7 | 7 | 7 | 7 | 7 | 90.0% | 7 | 7 | 7 | 7 | 7 | 7 | D0.0% | 7 |
| nGSgle- Ur 3 iU--y alk | 7 | 7 | 7 | 7 | 7 | 7 | 1 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | |
| % nGSgle- Ur 3 iU--y alk | 7 | 7 | 7 | 7 | 7 | 7 | 10.0% | 7 | 7 | 7 | 7 | 7 | 7 | N0.0% | 7 |

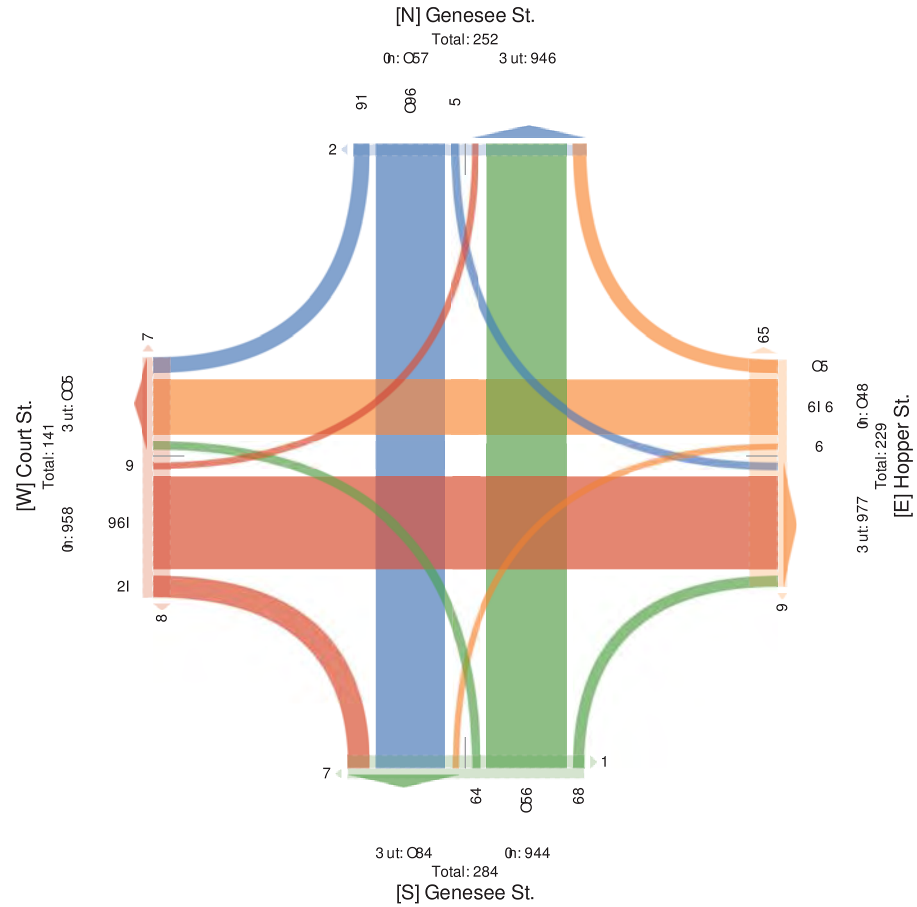
6Pet e-LiGr- art nGSgle- Ur 3 iU--y alk. ) m) eCL, BnBGhL, BBnBGhLUr iet , TmThiu, dmd 7Tuir



## 27. Genesee St. and Court St. - TMC

Thu Jul 19, 2018
AM Peak (8AM 79AM:
All 4 la55e5 (- )Chs5, ALs)i ulaseg TLui k5 at g r )t Cle7c t )s TLui k5, du5e5, Pege5sLat 5, d)i ni le5 St USag, d)i ni le5 St 4 IS55Balk:
All MSyeo et s5
Rwvmi 912D, - Si as)St vI 63099. 88, 7Dm26I 8. 6, r )se 4 Sgevc s)i a, NeB YSIk

PLSy)geg bnvTL)7r sase TLaff)i
wasa, R i 3
18I dakeLUSag,
4 Sase5y)lle, PA, 19620, c r



## 27. Genesee St. and Court St. - TMC

Thu Jul 19, 2018
PM Peak (4PM - 5PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 549127, Location: 43.099688, -75.234863, Site Code: Utica, New York

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

| Leg | Court St. | | | | | | | Hopper St. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Eastbound | | | | | | | Westbound | | | | | | |
| Time | L | T | R | U | RR | App | Ped* | L | T | R | U | RR | App | Ped* |
| 2018-07-19 4:00PM | 1 | 64 | 4 | 0 | 2 | **24** | 9 | 1 | 117 | 15 | 0 | 5 | **403** | 7 |
| 4:15PM | 1 | 57 | 13 | 0 | 2 | **20** | 5 | 1 | 101 | 12 | 0 | 0 | **447** | 3 |
| 4:30PM | 1 | 84 | 15 | 0 | 0 | **499** | 7 | 0 | 97 | 12 | 0 | 2 | **444** | 11 |
| 4:45PM | 1 | 54 | 10 | 0 | 3 | **13** | 3 | 0 | 70 | 11 | 0 | 5 | **31** | 1 |
| **5 o'lot** | 4 | 259 | 42 | 0 | 7 | **04a** | 24 | 2 | 385 | 50 | 0 | 12 | **771** | 22 |
| **% Appr6och** | 1.3% | 83.0% | 13.5% | 0% | 2.2% | - | - | 0.4% | 85.7% | 11.1% | 0% | 2.7% | - | - |
| **% 5 6Tot** | 0.3% | 16.4% | 2.7% | 0% | 0.4% | **4l 83%** | - | 0.1% | 24.4% | 3.2% | 0% | 0.8% | **a38 %** | - |
| **PHF** | 1.000 | 0.771 | 0.700 | - | 0.583 | **98239** | - | 0.500 | 0.823 | 0.833 | - | 0.600 | **98340** | - |
| **LighTs** | 4 | 256 | 42 | 0 | 7 | **09l** | - | 2 | 384 | 48 | 0 | 12 | **771** | - |
| **% LighTs** | 100% | 98.8% | 100% | 0% | 100% | **118 9%** | - | 100% | 99.7% | 96.0% | 0% | 100% | **1180%** | - |
| **ArTicutoTed 5 rucks ond Singte-UniT5 rucks** | 0 | 3 | 0 | 0 | 0 | **0** | - | 0 | 1 | 0 | 0 | 0 | **4** | - |
| **% ArTicutoTed 5 rucks ond Singte-UniT5 rucks** | 0% | 1.2% | 0% | 0% | 0% | **489%** | - | 0% | 0.3% | 0% | 0% | 0% | **98a %** | - |
| **Buses** | 0 | 0 | 0 | 0 | 0 | **9** | - | 0 | 0 | 2 | 0 | 0 | **a** | - |
| **% Buses** | 0% | 0% | 0% | 0% | 0% | **9%** | - | 0% | 0% | 4.0% | 0% | 0% | **987%** | - |
| **Bicyctes 6n R6od** | 0 | 0 | 0 | 0 | 0 | **9** | - | 0 | 0 | 0 | 0 | 0 | **9** | - |
| **% Bicyctes 6n R6od** | 0% | 0% | 0% | 0% | 0% | **9%** | - | 0% | 0% | 0% | 0% | 0% | **9%** | - |
| Pedestrians | - | - | - | - | - | - | 24 | - | - | - | - | - | - | 21 |
| % Pedestrians | - | - | - | - | - | - | 100% | - | - | - | - | - | - | 95.5% |
| Bicycles on Crosswalk | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 1 |
| % Bicycles on Crosswalk | - | - | - | - | - | - | 0% | - | - | - | - | - | - | 4.5% |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn



## 27. Genesee St. and Court St. - TMC

Thu Jul 19, 2018
PM Peak (4PM : 5PM- : ) Oevall Peak r Huv
o ll AlaCCeC(s Li hgC, o vgtulagec Tvut kCadc nIdi le:S dIgTvut kC, UuCeC, Pec eCgvladC, UIt Bt leC Hd y Hac, UIt Bt leCHd AvHCCRalk-
o ll MHOewedgC
ml D549123, s Ht agIHdD4. 7099N88, :3572. 48N. , nIge AHceDS gIt a, YeR b Hvk

PvHOIcec f BDTvI:ngage TvaGIt
I aga, mdt 7
184 Uakev y Hac,
AHageCOIlle, Po, 19. 20, S n

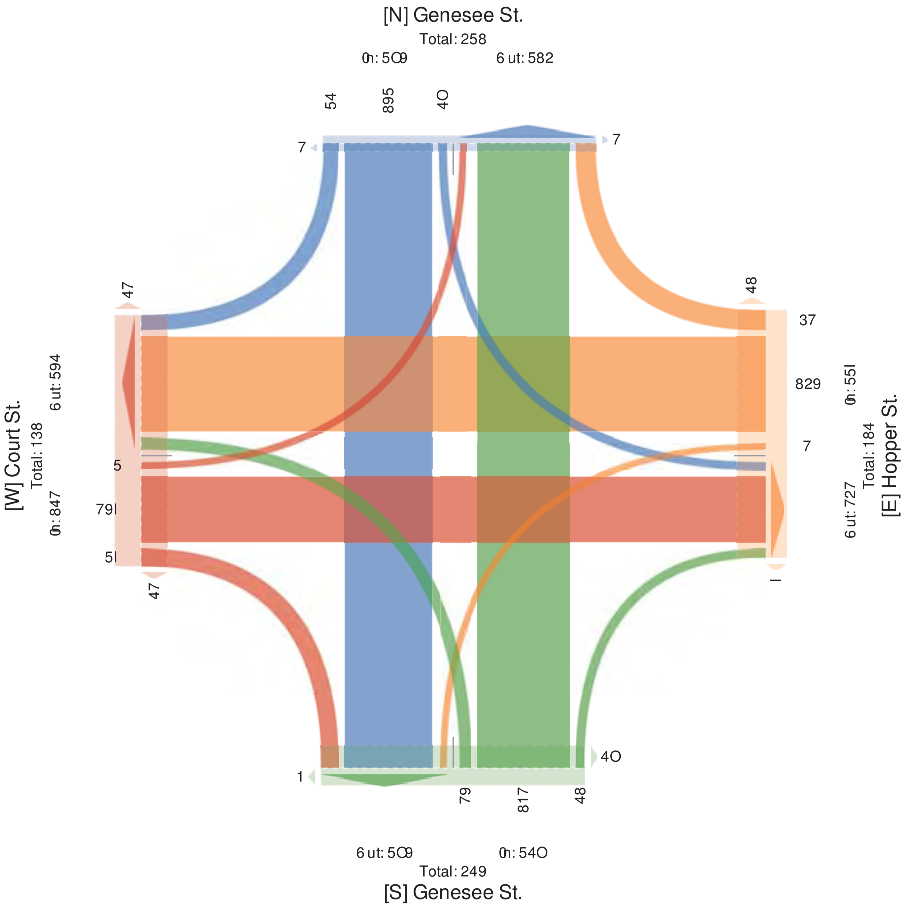
| s ei | * edeCee ng7 | | | | | | | * edeCee ng7 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| I Ivet gIHd | YHvghf Hudc | | | | | | | nHughf Hudc | | | | | | | |
| TLwe | s | T | y | S | yy | App | Pec6 | s | T | y | S | yy | App | Pec6 | Int |
| 2018:03:19 4D00PM | 9 | 9N | . | 0 | 0 | **251** | 2 | 5 | 93 | 11 | 0 | 2 | **227** | 1 | **480** |
| 4D15PM | . | 9N | . | 0 | 0 | **250** | 8 | . | 98 | 8 | 0 | . | **220** | 2 | **452** |
| 4D0PM | 8 | 83 | . | 0 | 0 | **31** | 4 | 0 | 80 | 5 | 0 | 1 | **16** | 1 | **837** |
| 4D45PM | 5 | 9. | 4 | 0 | 0 | **250** | . | 2 | 39 | 9 | 0 | 2 | **30** | 0 | **841** |
| **9 ıtoa** | 25 | .32 | 1. | 0 | 0 | **425** | 13 | 10 | .54 | .. | 0 | 8 | **457** | 4 | **2716** |
| **% ApprToch** | N71% | 9073% | .72% | 0% | 0% | - | : | 275% | 8374% | 871% | 0% | 270% | - | : | : |
| **% 9 Ttoa** | 17N% | 2.7N% | 078% | 0% | 0% | **06.5%** | : | 07N% | 2275% | 271% | 0% | 075% | **07.l %** | : | : |
| **PHF** | 07N94 | 079N9 | 0781. | : | : | **5.343** | : | 07500 | 0790. | 07350 | : | 07NN3 | **5.115** | : | 07912 |
| **Lights** | 25 | .N4 | 1. | 0 | 0 | **450** | : | 9 | .43 | .2 | 0 | 3 | **837** | : | 1552 |
| **% Lights** | 100% | 9378% | 100% | 0% | 0% | **31.5%** | : | 9070% | 9870% | 9370% | 0% | 8375% | **3l .7%** | : | 9875% |
| **Articuaoted 9 rucks ond Singæ-Unit 9 rucks** | 0 | 2 | 0 | 0 | 0 | **0** | : | 0 | 2 | 1 | 0 | 0 | **8** | : | 9 |
| **% Articuaoted 9 rucks ond Singæ-Unit 9 rucks** | 0% | 075% | 0% | 0% | 0% | **5.7%** | : | 0% | 07N% | .70% | 0% | 0% | **5.l %** | : | 07N% |
| **Buses** | 0 | N | 0 | 0 | 0 | **6** | : | 1 | 5 | 0 | 0 | 0 | **6** | : | 14 |
| **% Buses** | 0% | 17N% | 0% | 0% | 0% | **2.7%** | : | 1070% | 174% | 0% | 0% | 0% | **2.7%** | : | 079% |
| **Bicycæs Tn RTod** | 0 | 0 | 0 | 0 | 0 | **5** | : | 0 | 0 | 0 | 0 | 1 | **2** | : | 1 |
| **% Bicycæs Tn RTod** | 0% | 0% | 0% | 0% | 0% | **5%** | : | 0% | 0% | 0% | 0% | 1275% | **5.0%** | : | 071% |
| PeceCgvladC | : | : | : | : | : | : | 15 | : | : | : | : | : | : | 4 | |
| % PeceCgvladC | : | : | : | : | : | : | 8872% | : | : | : | : | : | : | 100% | : |
| UIt Bt leC Hd AvHCCRalk | : | : | : | : | : | : | 2 | : | : | : | : | : | : | 0 | |
| % UIt Bt leC Hd AvHCCRalk | : | : | : | : | : | : | 1178% | : | : | : | : | : | : | 0% | : |

6PeceCgvladCadc UIt Bt leCHd AvHCCRalk7s Ds eGg y Dy Li hg y y Dy Li hgHd vec, TDThvu, S DS :Tuvd

**27. Genesee St. and Court St. - TMC**

Thu Jul 19, 2018
PM Peak (4PM : 5PM- : ) Oevall Peak r Huv
o ll AlaCGeC(s Li hgC, o vgLulagec Tvut kCadc nLdi le:SdlgTvut kC, UuGeC, PeceGgladC, ULtBt leC
Hd y Hac, ULtBt leCHd AvHCCRalk-
o ll MHOewedgC
ni D549126, s Ht agHdD43.099788, :65.234873, nIge AHceDSgLta, NeR YHvk

PvHOLcec bBDTvLngage TvaffLt
I aga, mdt .
184 Uakevy Hac,
AHageCOLle, Po, 19320, Sn



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# Revised Appendix B

# SYNCHRO Reports

# Existing AM Synchro Reports

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 143 | 7 | 292 | 0 | 0 | 0 | 0 | 170 | 49 | 151 | 25 | 0 |
| Future Volume (vph) | 143 | 7 | 292 | 0 | 0 | 0 | 0 | 170 | 49 | 151 | 25 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 8 | 8 | 8 | 12 | 12 | 12 | 12 | 12 | 12 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.911 | | | | | | | 0.850 | | | |
| Flt Protected | | 0.984 | | | | | | | | | 0.959 | |
| Satd. Flow (prot) | 0 | 1665 | 0 | 0 | 0 | 0 | 0 | 1827 | 1495 | 0 | 1691 | 0 |
| Flt Permitted | | 0.984 | | | | | | | | | 0.633 | |
| Satd. Flow (perm) | 0 | 1665 | 0 | 0 | 0 | 0 | 0 | 1827 | 1495 | 0 | 1116 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 237 | | | | | | | 56 | | | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 161 | | | 214 | | | 285 | | | 268 | |
| Travel Time (s) | | 3.7 | | | 4.9 | | | 6.5 | | | 6.1 | |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Heavy Vehicles (%) | 5% | 0% | 1% | 2% | 2% | 2% | 0% | 4% | 8% | 9% | 0% | 0% |
| Adj. Flow (vph) | 163 | 8 | 332 | 0 | 0 | 0 | 0 | 193 | 56 | 172 | 28 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 503 | 0 | 0 | 0 | 0 | 0 | 193 | 56 | 0 | 200 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.20 | 1.20 | 1.20 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | | | | | 2 | 1 | 1 | 2 | |
| Detector Template | Left | Thru | | | | | | Thru | Right | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | | | | | 100 | 20 | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | | | | | 0 | 0 | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | | | | | 0 | 0 | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | | | | | 6 | 20 | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | | | | | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | | | | | NA | Perm | Perm | NA | |
| Protected Phases | | 4 | | | | | | 2 | | | 2 | |
| Permitted Phases | 4 | | | | | | | | 2 | 2 | | |
| Detector Phase | 4 | 4 | | | | | | 2 | 2 | 2 | 2 | |



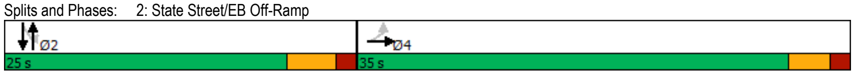
Lanes, Volumes, Timings
2: State Street/EB Off-Ramp 02/04/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | | | | | | 4.0 | 4.0 | 4.0 | 4.0 | |
| Minimum Split (s) | 8.5 | 8.5 | | | | | | 9.0 | 9.0 | 9.0 | 9.0 | |
| Total Split (s) | 35.0 | 35.0 | | | | | | 25.0 | 25.0 | 25.0 | 25.0 | |
| Total Split (%) | 58.3% | 58.3% | | | | | | 41.7% | 41.7% | 41.7% | 41.7% | |
| Maximum Green (s) | 30.5 | 30.5 | | | | | | 20.0 | 20.0 | 20.0 | 20.0 | |
| Yellow Time (s) | 3.0 | 3.0 | | | | | | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.5 | 1.5 | | | | | | 1.5 | 1.5 | 1.5 | 1.5 | |
| Lost Time Adjust (s) | | 0.0 | | | | | | 0.0 | 0.0 | | 0.0 | |
| Total Lost Time (s) | | 4.5 | | | | | | 5.0 | 5.0 | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | | | | | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | None | | | | | | Max | Max | Max | Max | |
| Walk Time (s) | 5.0 | 5.0 | | | | | | | | | | |
| Flash Dont Walk (s) | 15.0 | 15.0 | | | | | | | | | | |
| Pedestrian Calls (#/hr) | 0 | 0 | | | | | | | | | | |
| Act Effct Green (s) | | 13.7 | | | | | | 20.4 | 20.4 | | 20.4 | |
| Actuated g/C Ratio | | 0.31 | | | | | | 0.47 | 0.47 | | 0.47 | |
| v/c Ratio | | 0.74 | | | | | | 0.23 | 0.08 | | 0.39 | |
| Control Delay | | 13.4 | | | | | | 9.9 | 4.0 | | 12.7 | |
| Queue Delay | | 0.0 | | | | | | 0.0 | 0.0 | | 0.0 | |
| Total Delay | | 13.4 | | | | | | 9.9 | 4.0 | | 12.7 | |
| LOS | | B | | | | | | A | A | | B | |
| Approach Delay | | 13.4 | | | | | | 8.6 | | | 12.7 | |
| Approach LOS | | B | | | | | | A | | | B | |

**Intersection Summary**

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 43.8
Natural Cycle: 40
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 12.0 Intersection LOS: B
Intersection Capacity Utilization 57.0% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 2: State Street/EB Off-Ramp



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 25 | 49 | 20 | 41 | 59 | 27 | 5 | 170 | 38 | 86 | 247 | 16 |
| Future Volume (vph) | 25 | 49 | 20 | 41 | 59 | 27 | 5 | 170 | 38 | 86 | 247 | 16 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 123 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.971 | | | 0.972 | | | 0.973 | | | 0.991 | |
| Flt Protected | | 0.987 | | | 0.984 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1746 | 0 | 0 | 1719 | 0 | 1504 | 1762 | 0 | 1805 | 1876 | 0 |
| Flt Permitted | | 0.901 | | | 0.852 | | 0.585 | | | 0.617 | | |
| Satd. Flow (perm) | 0 | 1594 | 0 | 0 | 1488 | 0 | 926 | 1762 | 0 | 1172 | 1876 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 22 | | | 29 | | | 27 | | | 8 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 187 | | | 741 | | | 332 | | | 285 | |
| Travel Time (s) | | 4.3 | | | 16.8 | | | 7.5 | | | 6.5 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 0% | 2% | 15% | 5% | 7% | 4% | 20% | 6% | 0% | 0% | 0% | 6% |
| Adj. Flow (vph) | 27 | 53 | 22 | 45 | 64 | 29 | 5 | 185 | 41 | 93 | 268 | 17 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 102 | 0 | 0 | 138 | 0 | 5 | 226 | 0 | 93 | 285 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |



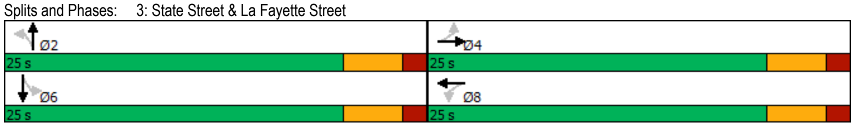


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Detector Phase | 4 | 4 | | 8 | 8 | | 2 | 2 | | 6 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | |
| Minimum Split (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 17.0 | 17.0 | | 17.0 | 17.0 | |
| Total Split (s) | 25.0 | 25.0 | | 25.0 | 25.0 | | 25.0 | 25.0 | | 25.0 | 25.0 | |
| Total Split (%) | 50.0% | 50.0% | | 50.0% | 50.0% | | 50.0% | 50.0% | | 50.0% | 50.0% | |
| Maximum Green (s) | 20.0 | 20.0 | | 20.0 | 20.0 | | 20.0 | 20.0 | | 20.0 | 20.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | None | None | | None | None | | Max | Max | | Max | Max | |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 15.0 | 15.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 8.4 | | | 8.4 | | 26.6 | 26.6 | | 26.6 | 26.6 | |
| Actuated g/C Ratio | | 0.20 | | | 0.20 | | 0.63 | 0.63 | | 0.63 | 0.63 | |
| v/c Ratio | | 0.30 | | | 0.43 | | 0.01 | 0.20 | | 0.12 | 0.24 | |
| Control Delay | | 13.5 | | | 15.8 | | 5.2 | 5.2 | | 5.8 | 5.8 | |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | | 13.5 | | | 15.8 | | 5.2 | 5.2 | | 5.8 | 5.8 | |
| LOS | | B | | | B | | A | A | | A | A | |
| Approach Delay | | 13.5 | | | 15.8 | | | 5.2 | | | 5.8 | |
| Approach LOS | | B | | | B | | | A | | | A | |

Intersection Summary

Area Type: Other
Cycle Length: 50
Actuated Cycle Length: 41.9
Natural Cycle: 40
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.43
Intersection Signal Delay: 8.2 Intersection LOS: A
Intersection Capacity Utilization 46.5% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 3: State Street & La Fayette Street



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 13 | 63 | 25 | 12 | 31 | 10 | 23 | 186 | 57 | 82 | 185 | 33 |
| Future Volume (vph) | 13 | 63 | 25 | 12 | 31 | 10 | 23 | 186 | 57 | 82 | 185 | 33 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 0 | | 0 | 114 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.966 | | | 0.974 | | | 0.965 | | | 0.977 | |
| Flt Protected | | 0.994 | | | 0.989 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1517 | 0 | 0 | 1480 | 0 | 1805 | 1745 | 0 | 1805 | 1795 | 0 |
| Flt Permitted | | 0.947 | | | 0.897 | | 0.608 | | | 0.593 | | |
| Satd. Flow (perm) | 0 | 1445 | 0 | 0 | 1342 | 0 | 1155 | 1745 | 0 | 1127 | 1795 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 28 | | | 11 | | | 37 | | | 22 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 213 | | | 745 | | | 877 | | | 332 | |
| Travel Time (s) | | 4.8 | | | 16.9 | | | 19.9 | | | 7.5 | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 8% | 10% | 4% | 8% | 13% | 10% | 0% | 6% | 2% | 0% | 4% | 0% |
| Parking (#/hr) | | 0 | | | 0 | | | | | | | |
| Adj. Flow (vph) | 14 | 70 | 28 | 13 | 34 | 11 | 26 | 207 | 63 | 91 | 206 | 37 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 112 | 0 | 0 | 58 | 0 | 26 | 270 | 0 | 91 | 243 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 24 | | | 24 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.14 | 1.00 | 1.00 | 1.14 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |



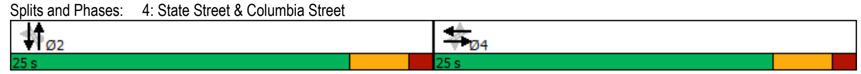


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Protected Phases | | 4 | | | 4 | | | 2 | | | 2 | |
| Permitted Phases | 4 | | | 4 | | | 2 | | | 2 | | |
| Detector Phase | 4 | 4 | | 4 | 4 | | 2 | 2 | | 2 | 2 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Minimum Split (s) | 9.0 | 9.0 | | 9.0 | 9.0 | | 9.0 | 9.0 | | 9.0 | 9.0 | |
| Total Split (s) | 25.0 | 25.0 | | 25.0 | 25.0 | | 25.0 | 25.0 | | 25.0 | 25.0 | |
| Total Split (%) | 50.0% | 50.0% | | 50.0% | 50.0% | | 50.0% | 50.0% | | 50.0% | 50.0% | |
| Maximum Green (s) | 20.0 | 20.0 | | 20.0 | 20.0 | | 20.0 | 20.0 | | 20.0 | 20.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | None | None | | None | None | | Max | Max | | Max | Max | |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 15.0 | 15.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 8.0 | | | 8.0 | | 28.7 | 28.7 | | 28.7 | 28.7 | |
| Actuated g/C Ratio | | 0.18 | | | 0.18 | | 0.66 | 0.66 | | 0.66 | 0.66 | |
| v/c Ratio | | 0.39 | | | 0.23 | | 0.03 | 0.23 | | 0.12 | 0.20 | |
| Control Delay | | 15.5 | | | 13.9 | | 5.0 | 4.9 | | 5.5 | 5.0 | |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | | 15.5 | | | 13.9 | | 5.0 | 4.9 | | 5.5 | 5.0 | |
| LOS | | B | | | B | | A | A | | A | A | |
| Approach Delay | | 15.5 | | | 13.9 | | | 4.9 | | | 5.1 | |
| Approach LOS | | B | | | B | | | A | | | A | |

**Intersection Summary**

Area Type: Other
Cycle Length: 50
Actuated Cycle Length: 43.6
Natural Cycle: 40
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.39
Intersection Signal Delay: 7.2 Intersection LOS: A
Intersection Capacity Utilization 36.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 4: State Street & Columbia Street



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 121 | 518 | 136 | 30 | 169 | 53 | 56 | 106 | 20 | 44 | 125 | 33 |
| Future Volume (vph) | 121 | 518 | 136 | 30 | 169 | 53 | 56 | 106 | 20 | 44 | 125 | 33 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 153 | | 0 | 350 | | 0 | 165 | | 0 | 167 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.969 | | | 0.964 | | | 0.977 | | | 0.969 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1736 | 3463 | 0 | 1597 | 3362 | 0 | 1805 | 1825 | 0 | 1805 | 1774 | 0 |
| Flt Permitted | 0.529 | | | 0.322 | | | 0.624 | | | 0.667 | | |
| Satd. Flow (perm) | 966 | 3463 | 0 | 541 | 3362 | 0 | 1186 | 1825 | 0 | 1267 | 1774 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 44 | | | 56 | | | 12 | | | 17 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 357 | | | 720 | | | 284 | | | 877 | |
| Travel Time (s) | | 8.1 | | | 16.4 | | | 6.5 | | | 19.9 | |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| Heavy Vehicles (%) | 4% | 1% | 1% | 13% | 4% | 2% | 0% | 2% | 0% | 0% | 4% | 3% |
| Adj. Flow (vph) | 136 | 582 | 153 | 34 | 190 | 60 | 63 | 119 | 22 | 49 | 140 | 37 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 136 | 735 | 0 | 34 | 250 | 0 | 63 | 141 | 0 | 49 | 177 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | pm+pt | NA | | pm+pt | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |



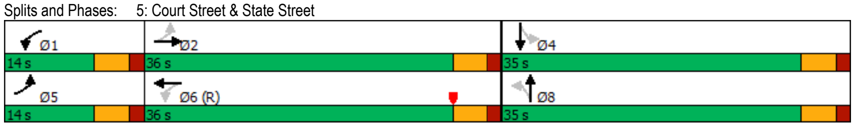


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Permitted Phases | 2 | | | 6 | | | 8 | | | 4 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 8 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 6.0 | | 6.0 | 10.0 | | 10.0 | 10.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 9.0 | 23.0 | | 23.0 | 23.0 | | 23.0 | 23.0 | | 23.0 | 23.0 | |
| Total Split (s) | 14.0 | 36.0 | | 14.0 | 36.0 | | 35.0 | 35.0 | | 35.0 | 35.0 | |
| Total Split (%) | 16.5% | 42.4% | | 16.5% | 42.4% | | 41.2% | 41.2% | | 41.2% | 41.2% | |
| Maximum Green (s) | 9.0 | 31.0 | | 9.0 | 31.0 | | 30.0 | 30.0 | | 30.0 | 30.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | None | None | | None | C-Max | | Max | Max | | None | None | |
| Walk Time (s) | | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Flash Dont Walk (s) | | 14.0 | | 14.0 | 14.0 | | 14.0 | 14.0 | | 14.0 | 14.0 | |
| Pedestrian Calls (#/hr) | | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | 43.2 | 37.9 | | 38.3 | 31.8 | | 30.0 | 30.0 | | 30.0 | 30.0 | |
| Actuated g/C Ratio | 0.51 | 0.45 | | 0.45 | 0.37 | | 0.35 | 0.35 | | 0.35 | 0.35 | |
| v/c Ratio | 0.24 | 0.47 | | 0.10 | 0.19 | | 0.15 | 0.22 | | 0.11 | 0.28 | |
| Control Delay | 17.2 | 26.3 | | 10.7 | 14.5 | | 20.1 | 18.7 | | 19.5 | 19.2 | |
| Queue Delay | 0.0 | 0.4 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 17.2 | 26.7 | | 10.7 | 14.5 | | 20.1 | 18.7 | | 19.5 | 19.2 | |
| LOS | B | C | | B | B | | C | B | | B | B | |
| Approach Delay | | 25.2 | | | 14.0 | | | 19.1 | | | 19.3 | |
| Approach LOS | | C | | | B | | | B | | | B | |

**Intersection Summary**

| | |
|---|---|
| Area Type: Other | |
| Cycle Length: 85 | |
| Actuated Cycle Length: 85 | |
| Offset: 0 (0%), Referenced to phase 6:WBTL, Start of Yellow | |
| Natural Cycle: 70 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.47 | |
| Intersection Signal Delay: 21.6 | Intersection LOS: C |
| Intersection Capacity Utilization 57.2% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 5: Court Street & State Street



| Lane Group | EBT | EBR | WBT | WBR | NBL | NBT | NBR | SBT | SBR2 | NER | NER2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 936 | 41 | 906 | 1 | 28 | 16 | 1 | 18 | 82 | 280 | 10 |
| Future Volume (vph) | 936 | 41 | 906 | 1 | 28 | 16 | 1 | 18 | 82 | 280 | 10 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | | 0 | | 0 | 0 | | 0 | | | 0 | |
| Storage Lanes | | 0 | | 0 | 0 | | 0 | | | 1 | |
| Taper Length (ft) | | | | | 25 | | | | | | |
| Lane Util. Factor | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.994 | | | | | 0.997 | | 0.889 | | 0.865 | |
| Flt Protected | | | | | | 0.970 | | | | | |
| Satd. Flow (prot) | 3485 | 0 | 3505 | 0 | 0 | 1837 | 0 | 1585 | 0 | 1611 | 0 |
| Flt Permitted | | | | | | 0.679 | | | | | |
| Satd. Flow (perm) | 3485 | 0 | 3505 | 0 | 0 | 1286 | 0 | 1585 | 0 | 1611 | 0 |
| Right Turn on Red | | | | Yes | | | No | | Yes | | No |
| Satd. Flow (RTOR) | | | | | | | | 98 | | | |
| Link Speed (mph) | 30 | | 30 | | | 30 | | 30 | | | |
| Link Distance (ft) | 277 | | 678 | | | 446 | | 334 | | | |
| Travel Time (s) | 6.3 | | 15.4 | | | 10.1 | | 7.6 | | | |
| Peak Hour Factor | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 |
| Heavy Vehicles (%) | 3% | 2% | 3% | 0% | 0% | 0% | 0% | 0% | 8% | 2% | 2% |
| Adj. Flow (vph) | 1114 | 49 | 1079 | 1 | 33 | 19 | 1 | 21 | 98 | 333 | 12 |
| Shared Lane Traffic (%) | | | | | | | | | | | |
| Lane Group Flow (vph) | 1163 | 0 | 1080 | 0 | 0 | 53 | 0 | 119 | 0 | 345 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left | Right | Left | Right | Right | Right |
| Median Width(ft) | 0 | | 0 | | | 0 | | 0 | | | |
| Link Offset(ft) | 0 | | 0 | | | 0 | | 0 | | | |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 | | 16 | | | |
| Two way Left Turn Lane | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | | 9 | | 9 | 15 | | 9 | | 9 | 9 | 9 |
| Number of Detectors | 2 | | 2 | | 1 | 2 | | 2 | | 1 | |
| Detector Template | Thru | | Thru | | Left | Thru | | Thru | | Right | |
| Leading Detector (ft) | 100 | | 100 | | 20 | 100 | | 100 | | 20 | |
| Trailing Detector (ft) | 0 | | 0 | | 0 | 0 | | 0 | | 0 | |
| Detector 1 Position(ft) | 0 | | 0 | | 0 | 0 | | 0 | | 0 | |
| Detector 1 Size(ft) | 6 | | 6 | | 20 | 6 | | 6 | | 20 | |
| Detector 1 Type | Cl+Ex | | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | | 0.0 | | 0.0 | 0.0 | | 0.0 | | 0.0 | |
| Detector 1 Queue (s) | 0.0 | | 0.0 | | 0.0 | 0.0 | | 0.0 | | 0.0 | |
| Detector 1 Delay (s) | 0.0 | | 0.0 | | 0.0 | 0.0 | | 0.0 | | 0.0 | |
| Detector 2 Position(ft) | 94 | | 94 | | | 94 | | 94 | | | |
| Detector 2 Size(ft) | 6 | | 6 | | | 6 | | 6 | | | |
| Detector 2 Type | Cl+Ex | | Cl+Ex | | | Cl+Ex | | Cl+Ex | | | |
| Detector 2 Channel | | | | | | | | | | | |
| Detector 2 Extend (s) | 0.0 | | 0.0 | | | 0.0 | | 0.0 | | | |
| Turn Type | NA | | NA | | Perm | NA | | NA | | Prot | |
| Protected Phases | 2 | | 6 | | | 4 | | 8 | | 1 | |



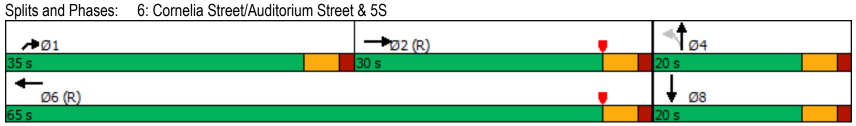


| Lane Group | EBT | EBR | WBT | WBR | NBL | NBT | NBR | SBT | SBR2 | NER | NER2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Permitted Phases | | | | | 4 | | | | | | |
| Detector Phase | 2 | | 6 | | 4 | 4 | | 8 | | 1 | |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 12.0 | | 4.0 | | 6.0 | 6.0 | | 6.0 | | 6.0 | |
| Minimum Split (s) | 17.0 | | 21.0 | | 11.0 | 11.0 | | 11.0 | | 11.0 | |
| Total Split (s) | 30.0 | | 65.0 | | 20.0 | 20.0 | | 20.0 | | 35.0 | |
| Total Split (%) | 35.3% | | 76.5% | | 23.5% | 23.5% | | 23.5% | | 41.2% | |
| Maximum Green (s) | 25.0 | | 60.0 | | 15.0 | 15.0 | | 15.0 | | 30.0 | |
| Yellow Time (s) | 3.5 | | 3.5 | | 3.5 | 3.5 | | 3.5 | | 3.5 | |
| All-Red Time (s) | 1.5 | | 1.5 | | 1.5 | 1.5 | | 1.5 | | 1.5 | |
| Lost Time Adjust (s) | 0.0 | | 0.0 | | | 0.0 | | 0.0 | | 0.0 | |
| Total Lost Time (s) | 5.0 | | 5.0 | | | 5.0 | | 5.0 | | 5.0 | |
| Lead/Lag | Lag | | | | | | | | | Lead | |
| Lead-Lag Optimize? | | | | | | | | | | Yes | |
| Vehicle Extension (s) | 2.0 | | 3.0 | | 2.0 | 2.0 | | 2.0 | | 2.0 | |
| Recall Mode | C-Min | | C-Min | | None | None | | None | | None | |
| Walk Time (s) | | | 5.0 | | | | | | | | |
| Flash Dont Walk (s) | | | 11.0 | | | | | | | | |
| Pedestrian Calls (#/hr) | | | 0 | | | | | | | | |
| Act Effct Green (s) | 41.8 | | 70.4 | | | 7.8 | | 7.8 | | 22.6 | |
| Actuated g/C Ratio | 0.49 | | 0.83 | | | 0.09 | | 0.09 | | 0.27 | |
| v/c Ratio | 0.68 | | 0.37 | | | 0.45 | | 0.51 | | 0.81 | |
| Control Delay | 22.5 | | 4.7 | | | 48.1 | | 18.9 | | 43.3 | |
| Queue Delay | 0.0 | | 0.0 | | | 0.0 | | 0.0 | | 0.0 | |
| Total Delay | 22.5 | | 4.7 | | | 48.1 | | 18.9 | | 43.3 | |
| LOS | C | | A | | | D | | B | | D | |
| Approach Delay | 22.5 | | 4.7 | | | 48.1 | | 18.9 | | | |
| Approach LOS | C | | A | | | D | | B | | | |

Intersection Summary

Area Type: Other
Cycle Length: 85
Actuated Cycle Length: 85
Offset: 16 (19%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 18.5 Intersection LOS: B
Intersection Capacity Utilization 66.8% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 6: Cornelia Street/Auditorium Street & 5S



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 7 | 144 | 23 | 40 | 111 | 17 | 8 | 22 | 13 | 12 | 45 | 13 |
| Future Volume (vph) | 7 | 144 | 23 | 40 | 111 | 17 | 8 | 22 | 13 | 12 | 45 | 13 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.982 | | | 0.986 | | | 0.959 | | | 0.974 | |
| Flt Protected | | 0.998 | | | 0.988 | | | 0.991 | | | 0.992 | |
| Satd. Flow (prot) | 0 | 1847 | 0 | 0 | 1792 | 0 | 0 | 1770 | 0 | 0 | 1631 | 0 |
| Flt Permitted | | 0.989 | | | 0.902 | | | 0.961 | | | 0.964 | |
| Satd. Flow (perm) | 0 | 1830 | 0 | 0 | 1636 | 0 | 0 | 1716 | 0 | 0 | 1585 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 18 | | | 13 | | | 15 | | | 15 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 741 | | | 632 | | | 331 | | | 446 | |
| Travel Time (s) | | 16.8 | | | 14.4 | | | 7.5 | | | 10.1 | |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| Heavy Vehicles (%) | 0% | 1% | 0% | 0% | 5% | 0% | 0% | 4% | 0% | 0% | 2% | 0% |
| Parking (#/hr) | | | | | | | | | | | 0 | |
| Adj. Flow (vph) | 8 | 162 | 26 | 45 | 125 | 19 | 9 | 25 | 15 | 13 | 51 | 15 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 196 | 0 | 0 | 189 | 0 | 0 | 49 | 0 | 0 | 79 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.14 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 4 | | | 2 | | | 2 | |
| Permitted Phases | 4 | | | 4 | | | 2 | | | 2 | | |
| Minimum Split (s) | 21.0 | 21.0 | | 21.0 | 21.0 | | 21.0 | 21.0 | | 21.0 | 21.0 | |
| Total Split (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 25.0 | 25.0 | | 25.0 | 25.0 | |
| Total Split (%) | 54.5% | 54.5% | | 54.5% | 54.5% | | 45.5% | 45.5% | | 45.5% | 45.5% | |
| Maximum Green (s) | 25.0 | 25.0 | | 25.0 | 25.0 | | 20.0 | 20.0 | | 20.0 | 20.0 | |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 25.0 | | | 25.0 | | | 20.0 | | | 20.0 | |
| Actuated g/C Ratio | | 0.45 | | | 0.45 | | | 0.36 | | | 0.36 | |
| v/c Ratio | | 0.23 | | | 0.25 | | | 0.08 | | | 0.14 | |
| Control Delay | | 9.2 | | | 9.7 | | | 9.3 | | | 10.7 | |



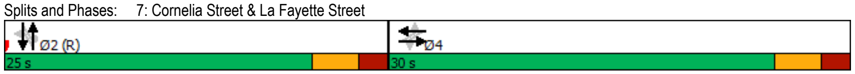


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 9.2 | | | 9.7 | | | 9.3 | | | 10.7 | |
| LOS | | A | | | A | | | A | | | B | |
| Approach Delay | | 9.2 | | | 9.7 | | | 9.3 | | | 10.7 | |
| Approach LOS | | A | | | A | | | A | | | B | |

Intersection Summary

Area Type: Other
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 22 (40%), Referenced to phase 2:NBSB and 6:, Start of Green
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.25
Intersection Signal Delay: 9.6 Intersection LOS: A
Intersection Capacity Utilization 35.9% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 7: Cornelia Street & La Fayette Street



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 5 | 158 | 30 | 13 | 49 | 7 | 5 | 32 | 14 | 8 | 86 | 14 |
| Future Volume (vph) | 5 | 158 | 30 | 13 | 49 | 7 | 5 | 32 | 14 | 8 | 86 | 14 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.979 | | | 0.987 | | | 0.963 | | | 0.982 | |
| Flt Protected | | 0.999 | | | 0.990 | | | 0.995 | | | 0.996 | |
| Satd. Flow (prot) | 0 | 1791 | 0 | 0 | 1688 | 0 | 0 | 1691 | 0 | 0 | 1829 | 0 |
| Flt Permitted | | 0.995 | | | 0.938 | | | 0.981 | | | 0.985 | |
| Satd. Flow (perm) | 0 | 1784 | 0 | 0 | 1599 | 0 | 0 | 1667 | 0 | 0 | 1809 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 19 | | | 8 | | | 17 | | | 16 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 745 | | | 571 | | | 871 | | | 331 | |
| Travel Time (s) | | 16.9 | | | 13.0 | | | 19.8 | | | 7.5 | |
| Peak Hour Factor | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 |
| Heavy Vehicles (%) | 0% | 4% | 3% | 15% | 10% | 0% | 20% | 3% | 14% | 0% | 2% | 0% |
| Adj. Flow (vph) | 6 | 190 | 36 | 16 | 59 | 8 | 6 | 39 | 17 | 10 | 104 | 17 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 232 | 0 | 0 | 83 | 0 | 0 | 62 | 0 | 0 | 131 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 4 | | | 2 | | | 2 | |
| Permitted Phases | 4 | | | 4 | | | 2 | | | 2 | | |
| Minimum Split (s) | 20.5 | 20.5 | | 20.5 | 20.5 | | 20.5 | 20.5 | | 20.5 | 20.5 | |
| Total Split (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 30.0 | 30.0 | | 30.0 | 30.0 | |
| Total Split (%) | 50.0% | 50.0% | | 50.0% | 50.0% | | 50.0% | 50.0% | | 50.0% | 50.0% | |
| Maximum Green (s) | 25.5 | 25.5 | | 25.5 | 25.5 | | 25.5 | 25.5 | | 25.5 | 25.5 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 4.5 | | | 4.5 | | | 4.5 | | | 4.5 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 25.5 | | | 25.5 | | | 25.5 | | | 25.5 | |
| Actuated g/C Ratio | | 0.42 | | | 0.42 | | | 0.42 | | | 0.42 | |
| v/c Ratio | | 0.30 | | | 0.12 | | | 0.09 | | | 0.17 | |
| Control Delay | | 11.7 | | | 10.3 | | | 8.5 | | | 10.1 | |
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |



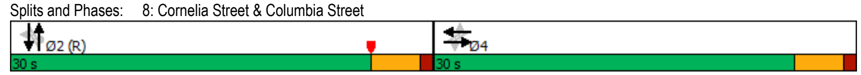


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Delay | | 11.7 | | | 10.3 | | | 8.5 | | | 10.1 | |
| LOS | | B | | | B | | | A | | | B | |
| Approach Delay | | 11.7 | | | 10.3 | | | 8.5 | | | 10.1 | |
| Approach LOS | | B | | | B | | | A | | | B | |

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 15.5 (26%), Referenced to phase 2:NBSB and 6:, Start of Yellow
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.30
Intersection Signal Delay: 10.7 Intersection LOS: B
Intersection Capacity Utilization 25.5% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 8: Cornelia Street & Columbia Street



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 53 | 499 | 23 | 7 | 216 | 26 | 15 | 10 | 13 | 19 | 23 | 27 |
| Future Volume (vph) | 53 | 499 | 23 | 7 | 216 | 26 | 15 | 10 | 13 | 19 | 23 | 27 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.994 | | | 0.984 | | | 0.916 | | | 0.920 | |
| Flt Protected | | 0.995 | | | 0.999 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 3533 | 0 | 0 | 3374 | 0 | 1805 | 1600 | 0 | 1626 | 1651 | 0 |
| Flt Permitted | | 0.896 | | | 0.938 | | 0.720 | | | 0.741 | | |
| Satd. Flow (perm) | 0 | 3182 | 0 | 0 | 3168 | 0 | 1368 | 1600 | 0 | 1268 | 1651 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 7 | | | 20 | | | 14 | | | 30 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 720 | | | 199 | | | 282 | | | 871 | |
| Travel Time (s) | | 16.4 | | | 4.5 | | | 6.4 | | | 19.8 | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 2% | 1% | 0% | 0% | 5% | 8% | 0% | 20% | 0% | 11% | 0% | 11% |
| Adj. Flow (vph) | 59 | 554 | 26 | 8 | 240 | 29 | 17 | 11 | 14 | 21 | 26 | 30 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 639 | 0 | 0 | 277 | 0 | 17 | 25 | 0 | 21 | 56 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 4 | | | 2 | | | 2 | |
| Permitted Phases | 4 | | | 4 | | | 2 | | | 2 | | |
| Minimum Split (s) | 20.0 | 20.0 | | 20.0 | 20.0 | | 20.5 | 20.5 | | 20.5 | 20.5 | |
| Total Split (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 40.0 | 40.0 | | 40.0 | 40.0 | |
| Total Split (%) | 42.9% | 42.9% | | 42.9% | 42.9% | | 57.1% | 57.1% | | 57.1% | 57.1% | |
| Maximum Green (s) | 26.0 | 26.0 | | 26.0 | 26.0 | | 35.5 | 35.5 | | 35.5 | 35.5 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 0.5 | 0.5 | | 0.5 | 0.5 | | 1.0 | 1.0 | | 1.0 | 1.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | | 4.0 | | | 4.0 | | 4.5 | 4.5 | | 4.5 | 4.5 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 26.0 | | | 26.0 | | 35.5 | 35.5 | | 35.5 | 35.5 | |
| Actuated g/C Ratio | | 0.37 | | | 0.37 | | 0.51 | 0.51 | | 0.51 | 0.51 | |
| v/c Ratio | | 0.54 | | | 0.23 | | 0.02 | 0.03 | | 0.03 | 0.07 | |
| Control Delay | | 19.2 | | | 14.6 | | 8.8 | 5.9 | | 8.9 | 5.5 | |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |



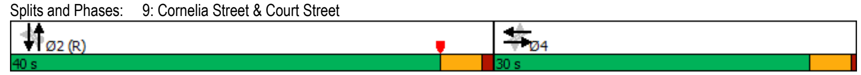


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Delay | | 19.2 | | | 14.6 | | 8.8 | 5.9 | | 8.9 | 5.5 | |
| LOS | | B | | | B | | A | A | | A | A | |
| Approach Delay | | 19.2 | | | 14.6 | | | 7.1 | | | 6.4 | |
| Approach LOS | | B | | | B | | | A | | | A | |

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 25.5 (36%), Referenced to phase 2:NBSB and 6:, Start of Yellow
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.54
Intersection Signal Delay: 16.5 Intersection LOS: B
Intersection Capacity Utilization 41.2% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 9: Cornelia Street & Court Street



| Lane Group | EBL | EBR | EBR2 | WBL | WBT | NBL | NBT | NBR2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 62 | 872 | 14 | 33 | 885 | 33 | 12 | 13 | 2 | 29 | 16 |
| Future Volume (vph) | 62 | 872 | 14 | 33 | 885 | 33 | 12 | 13 | 2 | 29 | 16 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 0.88 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.850 | | | | | 0.970 | | | 0.955 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.972 | | | 0.998 | |
| Satd. Flow (prot) | 1770 | 2787 | 0 | 1770 | 3539 | 0 | 1756 | 0 | 0 | 1775 | 0 |
| Flt Permitted | 0.261 | | | 0.950 | | | 0.795 | | | 0.983 | |
| Satd. Flow (perm) | 486 | 2787 | 0 | 1770 | 3539 | 0 | 1436 | 0 | 0 | 1749 | 0 |
| Right Turn on Red | | | Yes | | | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 103 | | | | | 90 | | | 17 | |
| Link Speed (mph) | | | | | 30 | | 30 | | | 30 | |
| Link Distance (ft) | | | | | 328 | | 433 | | | 303 | |
| Travel Time (s) | | | | | 7.5 | | 9.8 | | | 6.9 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 67 | 948 | 15 | 36 | 962 | 36 | 13 | 14 | 2 | 32 | 17 |
| Shared Lane Traffic (%) | | | | | | | | | | | |
| Lane Group Flow (vph) | 67 | 963 | 0 | 36 | 962 | 0 | 63 | 0 | 0 | 51 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Right | Left | Left | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | | | | 12 | | 0 | | | 0 | |
| Link Offset(ft) | | | | | 0 | | 0 | | | 0 | |
| Crosswalk Width(ft) | | | | | 16 | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 9 | 15 | | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 1 | | 1 | 2 | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Right | | Left | Thru | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 20 | | 20 | 100 | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 20 | | 20 | 6 | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | | | | 94 | | 94 | | | 94 | |
| Detector 2 Size(ft) | | | | | 6 | | 6 | | | 6 | |
| Detector 2 Type | | | | | Cl+Ex | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | |
| Detector 2 Extend (s) | | | | | 0.0 | | 0.0 | | | 0.0 | |
| Turn Type | pm+pt | Perm | | pm+pt | NA | Perm | NA | | Perm | NA | |
| Protected Phases | 5 | | | 1 | 6 | | 8 | | | 4 | |
| Permitted Phases | 2 | 2 | | 6 | | 8 | | | 4 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | 8 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 15.0 | | 4.0 | 15.0 | 6.0 | 6.0 | | 6.0 | 6.0 | |





| Lane Group | EBL | EBR | EBR2 | WBL | WBT | NBL | NBT | NBR2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Split (s) | 11.0 | 21.0 | | 9.0 | 21.0 | 12.0 | 12.0 | | 12.0 | 12.0 | |
| Total Split (s) | 15.0 | 48.0 | | 15.0 | 48.0 | 22.0 | 22.0 | | 22.0 | 22.0 | |
| Total Split (%) | 17.6% | 56.5% | | 17.6% | 56.5% | 25.9% | 25.9% | | 25.9% | 25.9% | |
| Maximum Green (s) | 10.0 | 43.0 | | 10.0 | 43.0 | 16.0 | 16.0 | | 16.0 | 16.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 6.0 | | | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | |
| Lead-Lag Optimize? | | Yes | | Yes | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | None | C-Max | | None | C-Max | None | None | | None | None | |
| Walk Time (s) | | 5.0 | | | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | | 0 | | | 0 | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | 66.3 | 63.3 | | 65.6 | 60.8 | | 7.4 | | | 7.4 | |
| Actuated g/C Ratio | 0.78 | 0.74 | | 0.77 | 0.72 | | 0.09 | | | 0.09 | |
| v/c Ratio | 0.14 | 0.46 | | 0.03 | 0.38 | | 0.30 | | | 0.30 | |
| Control Delay | 1.8 | 6.4 | | 4.4 | 8.5 | | 7.9 | | | 31.0 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.2 | | 0.0 | | | 0.0 | |
| Total Delay | 1.8 | 6.4 | | 4.4 | 8.7 | | 7.9 | | | 31.0 | |
| LOS | A | A | | A | A | | A | | | C | |
| Approach Delay | | | | | 8.5 | | 7.9 | | | 31.0 | |
| Approach LOS | | | | | A | | A | | | C | |

Intersection Summary

Area Type: Other
Cycle Length: 85
Actuated Cycle Length: 85
Offset: 43 (51%), Referenced to phase 2:EBL and 6:WBTL, Start of Yellow
Natural Cycle: 45
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.46
Intersection Signal Delay: 7.9 Intersection LOS: A
Intersection Capacity Utilization 57.6% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 10: Liberty/5S

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 14 | 107 | 20 | 32 | 131 | 11 | 11 | 51 | 15 | 10 | 54 | 25 |
| Future Volume (vph) | 14 | 107 | 20 | 32 | 131 | 11 | 11 | 51 | 15 | 10 | 54 | 25 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.981 | | | 0.991 | | | 0.974 | | | 0.962 | |
| Flt Protected | | 0.995 | | | 0.991 | | | 0.993 | | | 0.994 | |
| Satd. Flow (prot) | 0 | 1645 | 0 | 0 | 1596 | 0 | 0 | 1572 | 0 | 0 | 1502 | 0 |
| Flt Permitted | | 0.971 | | | 0.936 | | | 0.963 | | | 0.973 | |
| Satd. Flow (perm) | 0 | 1605 | 0 | 0 | 1507 | 0 | 0 | 1525 | 0 | 0 | 1471 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 20 | | | 8 | | | 16 | | | 27 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 632 | | | 310 | | | 324 | | | 433 | |
| Travel Time (s) | | 14.4 | | | 7.0 | | | 7.4 | | | 9.8 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 0% | 1% | 5% | 9% | 4% | 9% | 0% | 2% | 20% | 10% | 9% | 8% |
| Parking (#/hr) | | 0 | | | 0 | | | 0 | | | 0 | |
| Adj. Flow (vph) | 15 | 116 | 22 | 35 | 142 | 12 | 12 | 55 | 16 | 11 | 59 | 27 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 153 | 0 | 0 | 189 | 0 | 0 | 83 | 0 | 0 | 97 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.14 | 1.00 | 1.00 | 1.14 | 1.00 | 1.00 | 1.14 | 1.00 | 1.00 | 1.14 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 4 | | | 2 | | | 2 | |
| Permitted Phases | 4 | | | 4 | | | 2 | | | 2 | | |
| Minimum Split (s) | 21.0 | 21.0 | | 21.0 | 21.0 | | 21.0 | 21.0 | | 21.0 | 21.0 | |
| Total Split (s) | 35.0 | 35.0 | | 35.0 | 35.0 | | 25.0 | 25.0 | | 25.0 | 25.0 | |
| Total Split (%) | 58.3% | 58.3% | | 58.3% | 58.3% | | 41.7% | 41.7% | | 41.7% | 41.7% | |
| Maximum Green (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 20.0 | 20.0 | | 20.0 | 20.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 30.0 | | | 30.0 | | | 20.0 | | | 20.0 | |
| Actuated g/C Ratio | | 0.50 | | | 0.50 | | | 0.33 | | | 0.33 | |
| v/c Ratio | | 0.19 | | | 0.25 | | | 0.16 | | | 0.19 | |
| Control Delay | | 7.9 | | | 9.3 | | | 12.9 | | | 12.2 | |



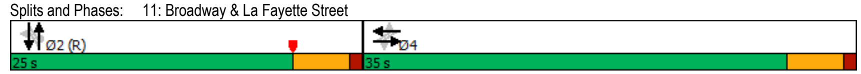


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 7.9 | | | 9.3 | | | 12.9 | | | 12.2 | |
| LOS | | A | | | A | | | B | | | B | |
| Approach Delay | | 7.9 | | | 9.3 | | | 12.9 | | | 12.2 | |
| Approach LOS | | A | | | A | | | B | | | B | |

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 20 (33%), Referenced to phase 2:NBSB and 6:, Start of Yellow
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.25
Intersection Signal Delay: 10.0 Intersection LOS: A
Intersection Capacity Utilization 30.0% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 11: Broadway & La Fayette Street



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 14 | 146 | 18 | 16 | 50 | 12 | 7 | 52 | 48 | 13 | 78 | 14 |
| Future Volume (vph) | 14 | 146 | 18 | 16 | 50 | 12 | 7 | 52 | 48 | 13 | 78 | 14 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.986 | | | 0.980 | | | 0.939 | | | 0.982 | |
| Flt Protected | | 0.996 | | | 0.990 | | | 0.997 | | | 0.994 | |
| Satd. Flow (prot) | 0 | 1781 | 0 | 0 | 1797 | 0 | 0 | 1732 | 0 | 0 | 1724 | 0 |
| Flt Permitted | | 0.982 | | | 0.939 | | | 0.984 | | | 0.963 | |
| Satd. Flow (perm) | 0 | 1756 | 0 | 0 | 1704 | 0 | 0 | 1709 | 0 | 0 | 1670 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 17 | | | 14 | | | 58 | | | 14 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 571 | | | 682 | | | 1003 | | | 324 | |
| Travel Time (s) | | 13.0 | | | 15.5 | | | 22.8 | | | 7.4 | |
| Peak Hour Factor | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 |
| Heavy Vehicles (%) | 29% | 3% | 0% | 0% | 4% | 0% | 29% | 0% | 2% | 0% | 5% | 29% |
| Adj. Flow (vph) | 17 | 176 | 22 | 19 | 60 | 14 | 8 | 63 | 58 | 16 | 94 | 17 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 215 | 0 | 0 | 93 | 0 | 0 | 129 | 0 | 0 | 127 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 4 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 4 | | | 2 | | | 6 | | |
| Minimum Split (s) | 20.5 | 20.5 | | 20.5 | 20.5 | | 20.0 | 20.0 | | 20.0 | 20.0 | |
| Total Split (s) | 35.0 | 35.0 | | 35.0 | 35.0 | | 20.0 | 20.0 | | 20.0 | 20.0 | |
| Total Split (%) | 63.6% | 63.6% | | 63.6% | 63.6% | | 36.4% | 36.4% | | 36.4% | 36.4% | |
| Maximum Green (s) | 30.5 | 30.5 | | 30.5 | 30.5 | | 16.0 | 16.0 | | 16.0 | 16.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 0.5 | 0.5 | | 0.5 | 0.5 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 4.5 | | | 4.5 | | | 4.0 | | | 4.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 30.5 | | | 30.5 | | | 16.0 | | | 16.0 | |
| Actuated g/C Ratio | | 0.55 | | | 0.55 | | | 0.29 | | | 0.29 | |
| v/c Ratio | | 0.22 | | | 0.10 | | | 0.24 | | | 0.26 | |
| Control Delay | | 6.4 | | | 7.8 | | | 11.0 | | | 15.0 | |
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |



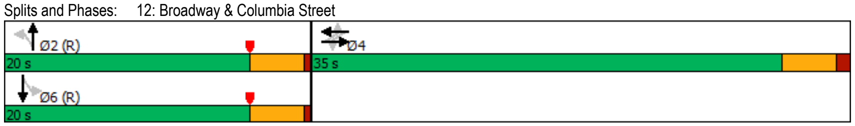
Lanes, Volumes, Timings
12: Broadway & Columbia Street 02/04/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Delay | | 6.4 | | | 7.8 | | | 11.0 | | | 15.0 | |
| LOS | | A | | | A | | | B | | | B | |
| Approach Delay | | 6.4 | | | 7.8 | | | 11.0 | | | 15.0 | |
| Approach LOS | | A | | | A | | | B | | | B | |

Intersection Summary

Area Type: Other
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 53 (96%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.26
Intersection Signal Delay: 9.6 Intersection LOS: A
Intersection Capacity Utilization 26.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 12: Broadway & Columbia Street



| Lane Group | SBL | SBR | SEL | SET | NWT | NWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 15 | 39 | 133 | 389 | 214 | 29 |
| Future Volume (vph) | 15 | 39 | 133 | 389 | 214 | 29 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 |
| Frt | 0.902 | | | | 0.982 | |
| Flt Protected | 0.986 | | | 0.987 | | |
| Satd. Flow (prot) | 1412 | 0 | 0 | 3493 | 3424 | 0 |
| Flt Permitted | 0.986 | | | 0.987 | | |
| Satd. Flow (perm) | 1412 | 0 | 0 | 3493 | 3424 | 0 |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 1003 | | | 262 | 183 | |
| Travel Time (s) | 22.8 | | | 6.0 | 4.2 | |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Heavy Vehicles (%) | 7% | 8% | 2% | 2% | 4% | 0% |
| Parking (#/hr) | 0 | | | | | |
| Adj. Flow (vph) | 17 | 45 | 153 | 447 | 246 | 33 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 62 | 0 | 0 | 600 | 279 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 12 | | | 0 | 0 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.14 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Sign Control | Stop | | | Free | Free | |

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 34.8% ICU Level of Service A

Analysis Period (min) 15





| Intersection | |
|---|---|
| Int Delay, s/veh | 2.4 |

| Movement | SBL | SBR | SEL | SET | NWT | NWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 15 | 39 | 133 | 389 | 214 | 29 |
| Future Vol, veh/h | 15 | 39 | 133 | 389 | 214 | 29 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 87 | 87 | 87 | 87 | 87 | 87 |
| Heavy Vehicles, % | 7 | 8 | 2 | 2 | 4 | 0 |
| Mvmt Flow | 17 | 45 | 153 | 447 | 246 | 33 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 793 | 140 | 279 | 0 | - | 0 |
| Stage 1 | 263 | - | - | - | - | - |
| Stage 2 | 530 | - | - | - | - | - |
| Critical Hdwy | 6.94 | 7.06 | 4.14 | - | - | - |
| Critical Hdwy Stg 1 | 5.94 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.94 | - | - | - | - | - |
| Follow-up Hdwy | 3.57 | 3.38 | 2.22 | - | - | - |
| Pot Cap-1 Maneuver | 316 | 864 | 1281 | - | - | - |
| Stage 1 | 742 | - | - | - | - | - |
| Stage 2 | 541 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 266 | 864 | 1281 | - | - | - |
| Mov Cap-2 Maneuver | 266 | - | - | - | - | - |
| Stage 1 | 624 | - | - | - | - | - |
| Stage 2 | 541 | - | - | - | - | - |

| Approach | SB | SE | NW |
|---|---|---|---|
| HCM Control Delay, s | 12.7 | 2.4 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NWT | NWR | SEL | SET | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 1281 | - | 532 |
| HCM Lane V/C Ratio | - | - | 0.119 | - | 0.117 |
| HCM Control Delay (s) | - | - | 8.2 | 0.4 | 12.7 |
| HCM Lane LOS | - | - | A | A | B |
| HCM 95th %tile Q(veh) | - | - | 0.4 | - | 0.4 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 3 | 878 | 3 | 14 | 8 | 0 | 0 | 5 | 8 |
| Future Volume (vph) | 0 | 0 | 0 | 3 | 878 | 3 | 14 | 8 | 0 | 0 | 5 | 8 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | | | 0.999 | | | | | | 0.916 | |
| Flt Protected | | | | | | | | 0.969 | | | | |
| Satd. Flow (prot) | 0 | 0 | 0 | 0 | 3436 | 0 | 0 | 1765 | 0 | 0 | 1414 | 0 |
| Flt Permitted | | | | | | | | 0.882 | | | | |
| Satd. Flow (perm) | 0 | 0 | 0 | 0 | 3436 | 0 | 0 | 1607 | 0 | 0 | 1414 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | | | 1 | | | | | | 10 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 328 | | | 342 | | | 77 | | | 399 | |
| Travel Time (s) | | 7.5 | | | 7.8 | | | 1.8 | | | 9.1 | |
| Peak Hour Factor | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 5% | 0% | 0% | 12% | 0% | 0% | 20% | 25% |
| Adj. Flow (vph) | 0 | 0 | 0 | 4 | 1126 | 4 | 18 | 10 | 0 | 0 | 6 | 10 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 0 | 0 | 1134 | 0 | 0 | 28 | 0 | 0 | 16 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | | | | 1 | 0 | | 1 | 1 | | | 2 | |
| Detector Template | | | | Left | | | Left | | | | Thru | |
| Leading Detector (ft) | | | | 20 | 0 | | 20 | 6 | | | 100 | |
| Trailing Detector (ft) | | | | 0 | 0 | | 0 | 0 | | | 0 | |
| Detector 1 Position(ft) | | | | 0 | 0 | | 0 | 0 | | | 0 | |
| Detector 1 Size(ft) | | | | 20 | 0 | | 20 | 6 | | | 6 | |
| Detector 1 Type | | | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | | | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | |
| Detector 1 Queue (s) | | | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | |
| Detector 1 Delay (s) | | | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | |
| Detector 2 Position(ft) | | | | | | | | | | | 94 | |
| Detector 2 Size(ft) | | | | | | | | | | | 6 | |
| Detector 2 Type | | | | | | | | | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | | | | | | | | | | 0.0 | |
| Turn Type | | | | Perm | NA | | Perm | NA | | | NA | |
| Protected Phases | | | | | 2 | | | 4 | | | 8 | |
| Permitted Phases | | | | 2 | | | 4 | | | | | |
| Detector Phase | | | | 2 | 2 | | 4 | 4 | | | 8 | |
| Switch Phase | | | | | | | | | | | | |



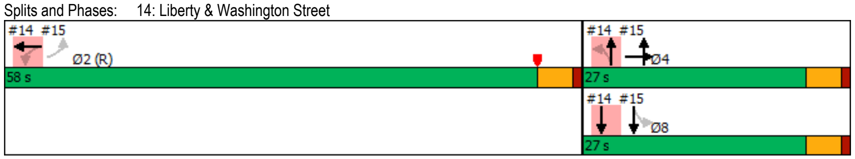


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Initial (s) | | | | 4.0 | 4.0 | | 4.0 | 4.0 | | | 4.0 | |
| Minimum Split (s) | | | | 8.5 | 8.5 | | 8.5 | 8.5 | | | 20.5 | |
| Total Split (s) | | | | 58.0 | 58.0 | | 27.0 | 27.0 | | | 27.0 | |
| Total Split (%) | | | | 68.2% | 68.2% | | 31.8% | 31.8% | | | 31.8% | |
| Maximum Green (s) | | | | 53.5 | 53.5 | | 22.5 | 22.5 | | | 22.5 | |
| Yellow Time (s) | | | | 3.5 | 3.5 | | 3.5 | 3.5 | | | 3.5 | |
| All-Red Time (s) | | | | 1.0 | 1.0 | | 1.0 | 1.0 | | | 1.0 | |
| Lost Time Adjust (s) | | | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | | | | 4.5 | | | 4.5 | | | 4.5 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | | | | 3.0 | 3.0 | | 3.0 | 3.0 | | | 3.0 | |
| Recall Mode | | | | C-Min | C-Min | | None | None | | | None | |
| Walk Time (s) | | | | 5.0 | 5.0 | | 5.0 | 5.0 | | | 5.0 | |
| Flash Dont Walk (s) | | | | 11.0 | 11.0 | | 11.0 | 11.0 | | | 11.0 | |
| Pedestrian Calls (#/hr) | | | | 0 | 0 | | 0 | 0 | | | 0 | |
| Act Effct Green (s) | | | | | 51.4 | | | 24.6 | | | 24.6 | |
| Actuated g/C Ratio | | | | | 0.60 | | | 0.29 | | | 0.29 | |
| v/c Ratio | | | | | 0.55 | | | 0.06 | | | 0.04 | |
| Control Delay | | | | | 25.6 | | | 7.1 | | | 12.8 | |
| Queue Delay | | | | | 0.1 | | | 0.0 | | | 0.0 | |
| Total Delay | | | | | 25.6 | | | 7.1 | | | 12.8 | |
| LOS | | | | | C | | | A | | | B | |
| Approach Delay | | | | | 25.6 | | | 7.1 | | | 12.8 | |
| Approach LOS | | | | | C | | | A | | | B | |

Intersection Summary

Area Type: Other
Cycle Length: 85
Actuated Cycle Length: 85
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:, Start of Yellow
Natural Cycle: 45
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.65
Intersection Signal Delay: 25.0 Intersection LOS: C
Intersection Capacity Utilization 39.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 14: Liberty & Washington Street



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 9 | 863 | 7 | 0 | 0 | 0 | 0 | 13 | 9 | 2 | 3 | 0 |
| Future Volume (vph) | 9 | 863 | 7 | 0 | 0 | 0 | 0 | 13 | 9 | 2 | 3 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 0.91 | 0.91 | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.999 | | | | | | 0.946 | | | | |
| Flt Protected | | 0.999 | | | | | | | | | 0.980 | |
| Satd. Flow (prot) | 0 | 5071 | 0 | 0 | 0 | 0 | 0 | 1605 | 0 | 0 | 1544 | 0 |
| Flt Permitted | | 0.999 | | | | | | | | | 0.957 | |
| Satd. Flow (perm) | 0 | 5071 | 0 | 0 | 0 | 0 | 0 | 1605 | 0 | 0 | 1508 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 1 | | | | | | 10 | | | | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 323 | | | 334 | | | 406 | | | 77 | |
| Travel Time (s) | | 7.3 | | | 7.6 | | | 9.2 | | | 1.8 | |
| Peak Hour Factor | 0.89 | 0.92 | 0.89 | 0.92 | 0.92 | 0.92 | 0.89 | 0.89 | 0.92 | 0.92 | 0.89 | 0.89 |
| Heavy Vehicles (%) | 11% | 2% | 0% | 2% | 2% | 2% | 0% | 0% | 2% | 2% | 33% | 0% |
| Parking (#/hr) | | | | | | | | 0 | | | | |
| Adj. Flow (vph) | 10 | 938 | 8 | 0 | 0 | 0 | 0 | 15 | 10 | 2 | 3 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 956 | 0 | 0 | 0 | 0 | 0 | 25 | 0 | 0 | 5 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.14 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | | | | | 2 | | 1 | 1 | |
| Detector Template | Left | Thru | | | | | | Thru | | Left | | |
| Leading Detector (ft) | 20 | 100 | | | | | | 100 | | 20 | 6 | |
| Trailing Detector (ft) | 0 | 0 | | | | | | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | | | | | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | | | | | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | | | | | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | | | | | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | | | | | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | | | | | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | | | | 94 | | | | |
| Detector 2 Size(ft) | | 6 | | | | | | 6 | | | | |
| Detector 2 Type | | Cl+Ex | | | | | | Cl+Ex | | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | | | | 0.0 | | | | |
| Turn Type | custom | NA | | | | | | NA | | Perm | NA | |
| Protected Phases | | 4! | | | | | | 4! | | | 8! | |
| Permitted Phases | 2 | | | | | | | | | 8! | | |
| Detector Phase | 2 | 4 | | | | | | 4 | | 8 | 8 | |



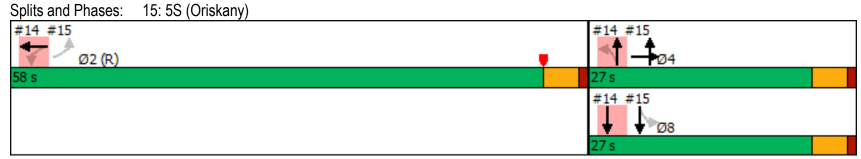


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | | | | | | 4.0 | | 4.0 | 4.0 | |
| Minimum Split (s) | 8.5 | 8.5 | | | | | | 8.5 | | 20.5 | 20.5 | |
| Total Split (s) | 58.0 | 27.0 | | | | | | 27.0 | | 27.0 | 27.0 | |
| Total Split (%) | 68.2% | 31.8% | | | | | | 31.8% | | 31.8% | 31.8% | |
| Maximum Green (s) | 53.5 | 22.5 | | | | | | 22.5 | | 22.5 | 22.5 | |
| Yellow Time (s) | 3.5 | 3.5 | | | | | | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | | | | | | 1.0 | | 1.0 | 1.0 | |
| Lost Time Adjust (s) | | 0.0 | | | | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 4.5 | | | | | | 4.5 | | | 4.5 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | | | | | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | C-Min | None | | | | | | None | | None | None | |
| Walk Time (s) | 5.0 | 5.0 | | | | | | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | | | | | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | | | | | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 24.6 | | | | | | 24.6 | | | 24.6 | |
| Actuated g/C Ratio | | 0.29 | | | | | | 0.29 | | | 0.29 | |
| v/c Ratio | | 0.65 | | | | | | 0.05 | | | 0.01 | |
| Control Delay | | 30.0 | | | | | | 14.2 | | | 17.6 | |
| Queue Delay | | 0.5 | | | | | | 0.0 | | | 0.0 | |
| Total Delay | | 30.5 | | | | | | 14.2 | | | 17.6 | |
| LOS | | C | | | | | | B | | | B | |
| Approach Delay | | 30.5 | | | | | | 14.2 | | | 17.6 | |
| Approach LOS | | C | | | | | | B | | | B | |

Intersection Summary

Area Type: Other
Cycle Length: 85
Actuated Cycle Length: 85
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:, Start of Yellow
Natural Cycle: 45
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.65
Intersection Signal Delay: 30.0 Intersection LOS: C
Intersection Capacity Utilization 27.8% ICU Level of Service A
Analysis Period (min) 15
! Phase conflict between lane groups.

Splits and Phases: 15: 5S (Oriskany)



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 8 | 114 | 164 | 10 | 13 | 14 |
| Future Volume (vph) | 8 | 114 | 164 | 10 | 13 | 14 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | 0.992 | | 0.930 | |
| Flt Protected | | 0.997 | | | 0.976 | |
| Satd. Flow (prot) | 0 | 1631 | 1597 | 0 | 1552 | 0 |
| Flt Permitted | | 0.997 | | | 0.976 | |
| Satd. Flow (perm) | 0 | 1631 | 1597 | 0 | 1552 | 0 |
| Link Speed (mph) | | 30 | 30 | | 30 | |
| Link Distance (ft) | | 310 | 319 | | 406 | |
| Travel Time (s) | | 7.0 | 7.3 | | 9.2 | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Heavy Vehicles (%) | 12% | 4% | 6% | 10% | 0% | 0% |
| Parking (#/hr) | | 0 | 0 | | 0 | |
| Adj. Flow (vph) | 9 | 123 | 176 | 11 | 14 | 15 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 132 | 187 | 0 | 29 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 0 | 0 | | 12 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.14 | 1.14 | 1.00 | 1.14 | 1.00 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Sign Control | | Free | Free | | Stop | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Control Type: Unsignalized | |
| Intersection Capacity Utilization 22.6% | ICU Level of Service A |
| Analysis Period (min) 15 | |





| Intersection | |
|---|---|
| Int Delay, s/veh | 1 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 8 | 114 | 164 | 10 | 13 | 14 |
| Future Vol, veh/h | 8 | 114 | 164 | 10 | 13 | 14 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 12 | 4 | 6 | 10 | 0 | 0 |
| Mvmt Flow | 9 | 123 | 176 | 11 | 14 | 15 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 187 | 0 | - | 0 | 323 | 182 |
| Stage 1 | - | - | - | - | 182 | - |
| Stage 2 | - | - | - | - | 141 | - |
| Critical Hdwy | 4.22 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 2.308 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 1329 | - | - | - | 675 | 866 |
| Stage 1 | - | - | - | - | 854 | - |
| Stage 2 | - | - | - | - | 891 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1329 | - | - | - | 670 | 866 |
| Mov Cap-2 Maneuver | - | - | - | - | 670 | - |
| Stage 1 | - | - | - | - | 848 | - |
| Stage 2 | - | - | - | - | 891 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.5 | 0 | 9.9 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1329 | - | - | - | 759 |
| HCM Lane V/C Ratio | 0.006 | - | - | - | 0.038 |
| HCM Control Delay (s) | 7.7 | 0 | - | - | 9.9 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.1 |

## Lanes, Volumes, Timings
### 17: Liberty & Seneca Street
02/04/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 58 | 859 | 1 | 12 | 70 | 0 | 0 | 12 | 5 |
| Future Volume (vph) | 0 | 0 | 0 | 58 | 859 | 1 | 12 | 70 | 0 | 0 | 12 | 5 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | | | | | | | | | 0.959 | |
| Flt Protected | | | | 0.950 | | | | 0.993 | | | | |
| Satd. Flow (prot) | 0 | 0 | 0 | 1752 | 3406 | 0 | 0 | 1865 | 0 | 0 | 1725 | 0 |
| Flt Permitted | | | | 0.950 | | | | 0.993 | | | | |
| Satd. Flow (perm) | 0 | 0 | 0 | 1752 | 3406 | 0 | 0 | 1865 | 0 | 0 | 1725 | 0 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 342 | | | 432 | | | 132 | | | 336 | |
| Travel Time (s) | | 7.8 | | | 9.8 | | | 3.0 | | | 7.6 | |
| Peak Hour Factor | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 |
| Heavy Vehicles (%) | 0% | 0% | 0% | 3% | 6% | 0% | 8% | 0% | 0% | 0% | 8% | 0% |
| Adj. Flow (vph) | 0 | 0 | 0 | 70 | 1035 | 1 | 14 | 84 | 0 | 0 | 14 | 6 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 0 | 70 | 1036 | 0 | 0 | 98 | 0 | 0 | 20 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 41.5% ICU Level of Service A

Analysis Period (min) 15



## HCM 2010 TWSC
### 17: Liberty & Seneca Street
02/04/2019

| Intersection | |
|---|---|
| Int Delay, s/veh | 3.5 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 0 | 0 | 58 | 859 | 1 | 12 | 70 | 0 | 0 | 12 | 5 |
| Future Vol, veh/h | 0 | 0 | 0 | 58 | 859 | 1 | 12 | 70 | 0 | 0 | 12 | 5 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | 0 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | - | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 83 | 83 | 83 | 83 | 83 | 83 | 83 | 83 | 83 | 83 | 83 | 83 |
| Heavy Vehicles, % | 0 | 0 | 0 | 3 | 6 | 0 | 8 | 0 | 0 | 0 | 8 | 0 |
| Mvmt Flow | 0 | 0 | 0 | 70 | 1035 | 1 | 14 | 84 | 0 | 0 | 14 | 6 |

| Major/Minor | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 0 | 665 | 1176 | - | - | 1176 | 518 |
| Stage 1 | - | - | - | 0 | 0 | - | - | 1176 | - |
| Stage 2 | - | - | - | 665 | 1176 | - | - | 0 | - |
| Critical Hdwy | 4.16 | - | - | 7.66 | 6.5 | - | - | 6.66 | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | 5.66 | - |
| Critical Hdwy Stg 2 | - | - | - | 6.66 | 5.5 | - | - | - | - |
| Follow-up Hdwy | 2.23 | - | - | 3.58 | 4 | - | - | 4.08 | 3.3 |
| Pot Cap-1 Maneuver | - | - | - | 334 | 193 | 0 | 0 | 181 | 508 |
| Stage 1 | - | - | - | - | - | 0 | 0 | 251 | - |
| Stage 2 | - | - | - | 402 | 267 | 0 | 0 | - | - |
| Platoon blocked, % | | - | - | | | | | | |
| Mov Cap-1 Maneuver | - | - | - | 310 | 193 | - | - | 181 | 508 |
| Mov Cap-2 Maneuver | - | - | - | 310 | 193 | - | - | 181 | - |
| Stage 1 | - | - | - | - | - | - | - | 251 | - |
| Stage 2 | - | - | - | 374 | 267 | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | | 38.2 | 22.8 |
| HCM LOS | | E | C |

| Minor Lane/Major Mvmt | NBLn1 | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 204 | - | - | - | 223 |
| HCM Lane V/C Ratio | 0.484 | - | - | - | 0.092 |
| HCM Control Delay (s) | 38.2 | - | - | - | 22.8 |
| HCM Lane LOS | E | - | - | - | C |
| HCM 95th %tile Q(veh) | 2.4 | - | - | - | 0.3 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 59 | 798 | 8 | 0 | 0 | 0 | 0 | 20 | 11 | 1 | 73 | 0 |
| Future Volume (vph) | 59 | 798 | 8 | 0 | 0 | 0 | 0 | 20 | 11 | 1 | 73 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 0.91 | 0.91 | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.999 | | | | | | 0.952 | | | | |
| Flt Protected | | 0.997 | | | | | | | | | 0.999 | |
| Satd. Flow (prot) | 0 | 5065 | 0 | 0 | 0 | 0 | 0 | 1577 | 0 | 0 | 1792 | 0 |
| Flt Permitted | | 0.997 | | | | | | | | | 0.999 | |
| Satd. Flow (perm) | 0 | 5065 | 0 | 0 | 0 | 0 | 0 | 1577 | 0 | 0 | 1792 | 0 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 334 | | | 383 | | | 385 | | | 132 | |
| Travel Time (s) | | 7.6 | | | 8.7 | | | 8.8 | | | 3.0 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.90 | 0.92 | 0.90 | 0.92 | 0.90 | 0.90 | 0.90 | 0.90 | 0.92 |
| Heavy Vehicles (%) | 2% | 2% | 2% | 0% | 2% | 0% | 2% | 5% | 0% | 0% | 6% | 2% |
| Parking (#/hr) | | | | | | | | 0 | | | | |
| Adj. Flow (vph) | 64 | 867 | 9 | 0 | 0 | 0 | 0 | 22 | 12 | 1 | 81 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 940 | 0 | 0 | 0 | 0 | 0 | 34 | 0 | 0 | 82 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.14 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 28.1% ICU Level of Service A

Analysis Period (min) 15





| Intersection | |
|---|---|
| Int Delay, s/veh | 2.8 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 59 | 798 | 8 | 0 | 0 | 0 | 0 | 20 | 11 | 1 | 73 | 0 |
| Future Vol, veh/h | 59 | 798 | 8 | 0 | 0 | 0 | 0 | 20 | 11 | 1 | 73 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | - | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 90 | 92 | 90 | 92 | 90 | 90 | 90 | 90 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 5 | 0 | 0 | 6 | 2 |
| Mvmt Flow | 64 | 867 | 9 | 0 | 0 | 0 | 0 | 22 | 12 | 1 | 81 | 0 |

| Major/Minor | Major1 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 0 | - | 1000 | 438 | 486 | 1004 | - |
| Stage 1 | - | - | - | - | 1000 | - | 0 | 0 | - |
| Stage 2 | - | - | - | - | 0 | - | 486 | 1004 | - |
| Critical Hdwy | 5.34 | - | - | - | 6.6 | 7.1 | 6.4 | 6.62 | - |
| Critical Hdwy Stg 1 | - | - | - | - | 5.6 | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.7 | 5.62 | - |
| Follow-up Hdwy | 3.12 | - | - | - | 4.05 | 3.9 | 3.8 | 4.06 | - |
| Pot Cap-1 Maneuver | - | - | - | 0 | 237 | 489 | 510 | 234 | 0 |
| Stage 1 | - | - | - | 0 | 313 | - | - | - | 0 |
| Stage 2 | - | - | - | 0 | - | - | 490 | 309 | 0 |
| Platoon blocked, % | | - | - | | | | | | |
| Mov Cap-1 Maneuver | - | - | - | - | 237 | 489 | 462 | 234 | - |
| Mov Cap-2 Maneuver | - | - | - | - | 237 | - | 462 | 234 | - |
| Stage 1 | - | - | - | - | 313 | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | 444 | 309 | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | | 19.1 | 28.2 |
| HCM LOS | | C | D |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 290 | - | - | - | 236 |
| HCM Lane V/C Ratio | 0.119 | - | - | - | 0.348 |
| HCM Control Delay (s) | 19.1 | - | - | - | 28.2 |
| HCM Lane LOS | C | - | - | - | D |
| HCM 95th %tile Q(veh) | 0.4 | - | - | - | 1.5 |

Lanes, Volumes, Timings
19: Seneca Street & La Fayette Street 02/04/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 14 | 111 | 4 | 7 | 121 | 14 | 4 | 3 | 4 | 13 | 3 | 60 |
| Future Volume (vph) | 14 | 111 | 4 | 7 | 121 | 14 | 4 | 3 | 4 | 13 | 3 | 60 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.996 | | | 0.986 | | | 0.951 | | | 0.894 | |
| Flt Protected | | 0.994 | | | 0.998 | | | 0.982 | | | 0.991 | |
| Satd. Flow (prot) | 0 | 1610 | 0 | 0 | 1565 | 0 | 0 | 1597 | 0 | 0 | 1460 | 0 |
| Flt Permitted | | 0.994 | | | 0.998 | | | 0.982 | | | 0.991 | |
| Satd. Flow (perm) | 0 | 1610 | 0 | 0 | 1565 | 0 | 0 | 1597 | 0 | 0 | 1460 | 0 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 319 | | | 216 | | | 181 | | | 385 | |
| Travel Time (s) | | 7.3 | | | 4.9 | | | 4.1 | | | 8.8 | |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Heavy Vehicles (%) | 0% | 6% | 0% | 0% | 8% | 7% | 0% | 0% | 0% | 8% | 0% | 3% |
| Parking (#/hr) | | 0 | | | 0 | | | 0 | | | 0 | |
| Adj. Flow (vph) | 15 | 116 | 4 | 7 | 126 | 15 | 4 | 3 | 4 | 14 | 3 | 63 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 135 | 0 | 0 | 148 | 0 | 0 | 11 | 0 | 0 | 80 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.14 | 1.00 | 1.00 | 1.14 | 1.00 | 1.00 | 1.14 | 1.00 | 1.00 | 1.14 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |

| Intersection Summary | | |
|---|---|---|
| Area Type: Other | | |
| Control Type: Unsignalized | | |
| Intersection Capacity Utilization 22.8% | | ICU Level of Service A |
| Analysis Period (min) 15 | | |



HCM 2010 TWSC
19: Seneca Street & La Fayette Street 02/04/2019

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.8 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 14 | 111 | 4 | 7 | 121 | 14 | 4 | 3 | 4 | 13 | 3 | 60 |
| Future Vol, veh/h | 14 | 111 | 4 | 7 | 121 | 14 | 4 | 3 | 4 | 13 | 3 | 60 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 |
| Heavy Vehicles, % | 0 | 6 | 0 | 0 | 8 | 7 | 0 | 0 | 0 | 8 | 0 | 3 |
| Mvmt Flow | 15 | 116 | 4 | 7 | 126 | 15 | 4 | 3 | 4 | 14 | 3 | 63 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 141 | 0 | 0 | 120 | 0 | 0 | 329 | 303 | 118 | 300 | 298 | 134 |
| Stage 1 | - | - | - | - | - | - | 148 | 148 | - | 148 | 148 | - |
| Stage 2 | - | - | - | - | - | - | 181 | 155 | - | 152 | 150 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.1 | 6.5 | 6.2 | 7.18 | 6.5 | 6.23 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.18 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.18 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.572 | 4 | 3.327 |
| Pot Cap-1 Maneuver | 1455 | - | - | 1480 | - | - | 628 | 613 | 939 | 641 | 617 | 912 |
| Stage 1 | - | - | - | - | - | - | 859 | 779 | - | 841 | 779 | - |
| Stage 2 | - | - | - | - | - | - | 825 | 773 | - | 836 | 777 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1455 | - | - | 1480 | - | - | 576 | 603 | 939 | 628 | 607 | 912 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 576 | 603 | - | 628 | 607 | - |
| Stage 1 | - | - | - | - | - | - | 850 | 770 | - | 832 | 775 | - |
| Stage 2 | - | - | - | - | - | - | 762 | 769 | - | 820 | 768 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 0.8 | 0.4 | 10.4 | 9.8 |
| HCM LOS | | | B | A |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 680 | 1455 | - | - | 1480 | - | - | 831 |
| HCM Lane V/C Ratio | 0.017 | 0.01 | - | - | 0.005 | - | - | 0.095 |
| HCM Control Delay (s) | 10.4 | 7.5 | 0 | - | 7.4 | 0 | - | 9.8 |
| HCM Lane LOS | B | A | A | - | A | A | - | A |
| HCM 95th %tile Q(veh) | 0.1 | 0 | - | - | 0 | - | - | 0.3 |

## Lanes, Volumes, Timings
## 20: Genesee St & Liberty

02/04/2019

| Lane Group | WBT | WBR2 | SBR | SBR2 | NET | SWT | SWR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 940 | 7 | 34 | 61 | 145 | 350 | 5 |
| Future Volume (vph) | 940 | 7 | 34 | 61 | 145 | 350 | 5 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 0.91 | 0.91 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 |
| Frt | 0.999 | | 0.865 | | | 0.998 | |
| Flt Protected | | | | | | | |
| Satd. Flow (prot) | 4891 | 0 | 1450 | 0 | 3406 | 3431 | 0 |
| Flt Permitted | | | | | | | |
| Satd. Flow (perm) | 4891 | 0 | 1450 | 0 | 3406 | 3431 | 0 |
| Right Turn on Red | | Yes | | Yes | | | |
| Satd. Flow (RTOR) | 116 | | 116 | | | | |
| Link Speed (mph) | 30 | | | | 30 | 30 | |
| Link Distance (ft) | 553 | | | | 118 | 251 | |
| Travel Time (s) | 12.6 | | | | 2.7 | 5.7 | |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Heavy Vehicles (%) | 6% | 0% | 2% | 2% | 6% | 5% | 5% |
| Parking (#/hr) | | | 0 | | | | |
| Adj. Flow (vph) | 1068 | 8 | 39 | 69 | 165 | 398 | 6 |
| Shared Lane Traffic (%) | | | | | | | |
| Lane Group Flow (vph) | 1076 | 0 | 108 | 0 | 165 | 404 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Right | Right | Left | Left | Right |
| Median Width(ft) | 0 | | | | 0 | 0 | |
| Link Offset(ft) | 0 | | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.14 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | | 9 | 9 | 9 | | | 9 |
| Number of Detectors | 2 | | 1 | | 2 | 2 | |
| Detector Template | Thru | | Right | | Thru | Thru | |
| Leading Detector (ft) | 100 | | 20 | | 100 | 100 | |
| Trailing Detector (ft) | 0 | | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 6 | | 20 | | 6 | 6 | |
| Detector 1 Type | Cl+Ex | | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | |
| Detector 1 Extend (s) | 0.0 | | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | 94 | | | | 94 | 94 | |
| Detector 2 Size(ft) | 6 | | | | 6 | 6 | |
| Detector 2 Type | Cl+Ex | | | | Cl+Ex | Cl+Ex | |
| Detector 2 Channel | | | | | | | |
| Detector 2 Extend (s) | 0.0 | | | | 0.0 | 0.0 | |
| Turn Type | NA | | Perm | | NA | NA | |
| Protected Phases | 2 | | | | 8 | 4 | |
| Permitted Phases | | | 3 | | | | |
| Detector Phase | 2 | | 3 | | 8 | 4 | |



## Lanes, Volumes, Timings
## 20: Genesee St & Liberty

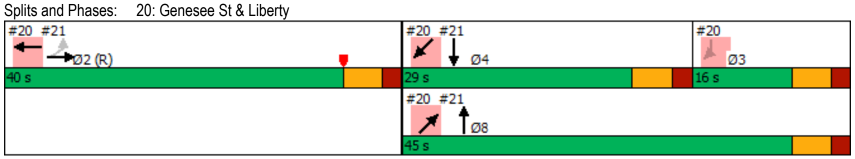
02/04/2019

| Lane Group | WBT | WBR2 | SBR | SBR2 | NET | SWT | SWR |
|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 15.0 | | 6.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 46.0 | | 12.0 | | 12.0 | 12.0 | |
| Total Split (s) | 40.0 | | 16.0 | | 45.0 | 29.0 | |
| Total Split (%) | 47.1% | | 18.8% | | 52.9% | 34.1% | |
| Maximum Green (s) | 34.0 | | 10.0 | | 39.0 | 23.0 | |
| Yellow Time (s) | 4.0 | | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 2.0 | | 2.0 | | 2.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | | 6.0 | | 6.0 | 6.0 | |
| Lead/Lag | | | Lag | | | Lead | |
| Lead-Lag Optimize? | | | | | | | |
| Vehicle Extension (s) | 1.0 | | 2.5 | | 2.5 | 2.5 | |
| Recall Mode | C-Min | | None | | None | None | |
| Walk Time (s) | 7.0 | | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 33.0 | | 29.0 | | 29.0 | 29.0 | |
| Pedestrian Calls (#/hr) | 0 | | 0 | | 0 | 0 | |
| Act Effct Green (s) | 45.9 | | 6.9 | | 27.1 | 16.6 | |
| Actuated g/C Ratio | 0.54 | | 0.08 | | 0.32 | 0.20 | |
| v/c Ratio | 0.40 | | 0.48 | | 0.15 | 0.60 | |
| Control Delay | 12.2 | | 14.3 | | 6.3 | 34.4 | |
| Queue Delay | 0.0 | | 0.0 | | 0.2 | 0.0 | |
| Total Delay | 12.2 | | 14.3 | | 6.5 | 34.4 | |
| LOS | B | | B | | A | C | |
| Approach Delay | 12.2 | | | | 6.5 | 34.4 | |
| Approach LOS | B | | | | A | C | |

Intersection Summary

Area Type: Other
Cycle Length: 85
Actuated Cycle Length: 85
Offset: 10 (12%), Referenced to phase 2:WBT and 6:, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.60
Intersection Signal Delay: 16.9 Intersection LOS: B
Intersection Capacity Utilization 49.0% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 20: Genesee St & Liberty



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 2 | 717 | 163 | 0 | 0 | 0 | 0 | 149 | 40 | 0 | 380 | 0 |
| Future Volume (vph) | 2 | 717 | 163 | 0 | 0 | 0 | 0 | 149 | 40 | 0 | 380 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | 150 | 150 | | 0 | 150 | | 0 | 150 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 0.86 | 0.86 | 0.86 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 0.91 | 1.00 |
| Frt | | 0.972 | | | | | | 0.968 | | | | |
| Flt Protected | | | | | | | | | | | | |
| Satd. Flow (prot) | 0 | 6036 | 0 | 0 | 0 | 0 | 0 | 3048 | 0 | 0 | 4940 | 0 |
| Flt Permitted | | | | | | | | | | | | |
| Satd. Flow (perm) | 0 | 6036 | 0 | 0 | 0 | 0 | 0 | 3048 | 0 | 0 | 4940 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 80 | | | | | | 43 | | | | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 383 | | | 660 | | | 402 | | | 118 | |
| Travel Time (s) | | 8.7 | | | 15.0 | | | 9.1 | | | 2.7 | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Heavy Vehicles (%) | 0% | 6% | 2% | 0% | 0% | 0% | 0% | 7% | 16% | 0% | 5% | 0% |
| Parking (#/hr) | | | | | | | | 0 | | | | |
| Adj. Flow (vph) | 2 | 771 | 175 | 0 | 0 | 0 | 0 | 160 | 43 | 0 | 409 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 948 | 0 | 0 | 0 | 0 | 0 | 203 | 0 | 0 | 409 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.07 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | | | | | 2 | | | 2 | |
| Detector Template | Left | Thru | | | | | | Thru | | | Thru | |
| Leading Detector (ft) | 20 | 100 | | | | | | 100 | | | 100 | |
| Trailing Detector (ft) | 0 | 0 | | | | | | 0 | | | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | | | | | 0 | | | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | | | | | 6 | | | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | | | | | Cl+Ex | | | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | | | | | 0.0 | | | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | | | | | 0.0 | | | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | | | | | 0.0 | | | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | | | | | NA | | | NA | |





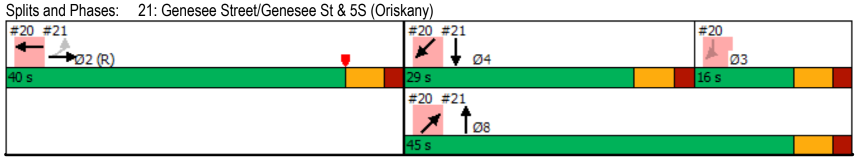
| Lane Group | Ø3 |
|---|---|
| Lane Configurations | |
| Traffic Volume (vph) | |
| Future Volume (vph) | |
| Ideal Flow (vphpl) | |
| Storage Length (ft) | |
| Storage Lanes | |
| Taper Length (ft) | |
| Lane Util. Factor | |
| Frt | |
| Flt Protected | |
| Satd. Flow (prot) | |
| Flt Permitted | |
| Satd. Flow (perm) | |
| Right Turn on Red | |
| Satd. Flow (RTOR) | |
| Link Speed (mph) | |
| Link Distance (ft) | |
| Travel Time (s) | |
| Peak Hour Factor | |
| Heavy Vehicles (%) | |
| Parking (#/hr) | |
| Adj. Flow (vph) | |
| Shared Lane Traffic (%) | |
| Lane Group Flow (vph) | |
| Enter Blocked Intersection | |
| Lane Alignment | |
| Median Width(ft) | |
| Link Offset(ft) | |
| Crosswalk Width(ft) | |
| Two way Left Turn Lane | |
| Headway Factor | |
| Turning Speed (mph) | |
| Number of Detectors | |
| Detector Template | |
| Leading Detector (ft) | |
| Trailing Detector (ft) | |
| Detector 1 Position(ft) | |
| Detector 1 Size(ft) | |
| Detector 1 Type | |
| Detector 1 Channel | |
| Detector 1 Extend (s) | |
| Detector 1 Queue (s) | |
| Detector 1 Delay (s) | |
| Detector 2 Position(ft) | |
| Detector 2 Size(ft) | |
| Detector 2 Type | |
| Detector 2 Channel | |
| Detector 2 Extend (s) | |
| Turn Type | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Protected Phases | | 2 | | | | | | 8 | | | 4 | |
| Permitted Phases | 2 | | | | | | | | | | | |
| Detector Phase | 2 | 2 | | | | | | 8 | | | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 15.0 | 15.0 | | | | | | 6.0 | | | 6.0 | |
| Minimum Split (s) | 46.0 | 46.0 | | | | | | 12.0 | | | 12.0 | |
| Total Split (s) | 40.0 | 40.0 | | | | | | 45.0 | | | 29.0 | |
| Total Split (%) | 47.1% | 47.1% | | | | | | 52.9% | | | 34.1% | |
| Maximum Green (s) | 34.0 | 34.0 | | | | | | 39.0 | | | 23.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | | | | | 4.0 | | | 4.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | | | | | 2.0 | | | 2.0 | |
| Lost Time Adjust (s) | | 0.0 | | | | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 6.0 | | | | | | 6.0 | | | 6.0 | |
| Lead/Lag | | | | | | | | | | | Lead | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 1.0 | 1.0 | | | | | | 2.5 | | | 2.5 | |
| Recall Mode | C-Min | C-Min | | | | | | None | | | None | |
| Walk Time (s) | 7.0 | 7.0 | | | | | | 7.0 | | | 7.0 | |
| Flash Dont Walk (s) | 33.0 | 33.0 | | | | | | 29.0 | | | 29.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | | | | | 0 | | | 0 | |
| Act Effct Green (s) | | 45.9 | | | | | | 27.1 | | | 16.6 | |
| Actuated g/C Ratio | | 0.54 | | | | | | 0.32 | | | 0.20 | |
| v/c Ratio | | 0.29 | | | | | | 0.20 | | | 0.42 | |
| Control Delay | | 24.3 | | | | | | 14.7 | | | 6.0 | |
| Queue Delay | | 0.0 | | | | | | 0.0 | | | 0.3 | |
| Total Delay | | 24.3 | | | | | | 14.7 | | | 6.2 | |
| LOS | | C | | | | | | B | | | A | |
| Approach Delay | | 24.3 | | | | | | 14.7 | | | 6.2 | |
| Approach LOS | | C | | | | | | B | | | A | |

Intersection Summary

Area Type: Other
Cycle Length: 85
Actuated Cycle Length: 85
Offset: 10 (12%), Referenced to phase 2:WBT and 6:, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.60
Intersection Signal Delay: 18.3 Intersection LOS: B
Intersection Capacity Utilization 30.5% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 21: Genesee Street/Genesee St & 5S (Oriskany)








| Lane Group | Ø3 |
|---|---|
| Protected Phases | 3 |
| Permitted Phases | |
| Detector Phase | |
| Switch Phase | |
| Minimum Initial (s) | 6.0 |
| Minimum Split (s) | 12.0 |
| Total Split (s) | 16.0 |
| Total Split (%) | 19% |
| Maximum Green (s) | 10.0 |
| Yellow Time (s) | 4.0 |
| All-Red Time (s) | 2.0 |
| Lost Time Adjust (s) | |
| Total Lost Time (s) | |
| Lead/Lag | Lag |
| Lead-Lag Optimize? | |
| Vehicle Extension (s) | 2.5 |
| Recall Mode | None |
| Walk Time (s) | 7.0 |
| Flash Dont Walk (s) | 29.0 |
| Pedestrian Calls (#/hr) | 0 |
| Act Effct Green (s) | |
| Actuated g/C Ratio | |
| v/c Ratio | |
| Control Delay | |
| Queue Delay | |
| Total Delay | |
| LOS | |
| Approach Delay | |
| Approach LOS | |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 21 | 99 | 35 | 28 | 79 | 9 | 18 | 158 | 20 | 81 | 426 | 42 |
| Future Volume (vph) | 21 | 99 | 35 | 28 | 79 | 9 | 18 | 158 | 20 | 81 | 426 | 42 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Frt | | 0.969 | | | 0.989 | | | 0.984 | | | 0.989 | |
| Flt Protected | | 0.993 | | | 0.988 | | | 0.996 | | | 0.993 | |
| Satd. Flow (prot) | 0 | 1509 | 0 | 0 | 1529 | 0 | 0 | 3295 | 0 | 0 | 3302 | 0 |
| Flt Permitted | | 0.945 | | | 0.899 | | | 0.885 | | | 0.855 | |
| Satd. Flow (perm) | 0 | 1436 | 0 | 0 | 1391 | 0 | 0 | 2928 | 0 | 0 | 2843 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 13 | | | 4 | | | 17 | | | 15 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 216 | | | 304 | | | 420 | | | 402 | |
| Travel Time (s) | | 4.9 | | | 6.9 | | | 9.5 | | | 9.1 | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Heavy Vehicles (%) | 19% | 8% | 6% | 7% | 6% | 44% | 2% | 2% | 2% | 2% | 2% | 2% |
| Parking (#/hr) | | 0 | | | 0 | | | 0 | | | 0 | |
| Adj. Flow (vph) | 23 | 106 | 38 | 30 | 85 | 10 | 19 | 170 | 22 | 87 | 458 | 45 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 167 | 0 | 0 | 125 | 0 | 0 | 211 | 0 | 0 | 590 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.14 | 1.00 | 1.00 | 1.14 | 1.00 | 1.00 | 1.07 | 1.00 | 1.00 | 1.07 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | pm+pt | NA | |
| Protected Phases | | 4 | | | 8 | | | 6 | | 5 | 2 | |
| Permitted Phases | 4 | | | 8 | | | 6 | | | 2 | | |
| Detector Phase | 4 | 4 | | 8 | 8 | | 6 | 6 | | 5 | 2 | |





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 4.0 | |
| Minimum Split (s) | 23.0 | 23.0 | | 23.0 | 23.0 | | 23.0 | 23.0 | | 10.0 | 23.0 | |
| Total Split (s) | 34.0 | 34.0 | | 34.0 | 34.0 | | 65.0 | 65.0 | | 11.0 | 76.0 | |
| Total Split (%) | 30.9% | 30.9% | | 30.9% | 30.9% | | 59.1% | 59.1% | | 10.0% | 69.1% | |
| Maximum Green (s) | 27.0 | 27.0 | | 27.0 | 27.0 | | 58.0 | 58.0 | | 6.0 | 69.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 3.0 | 4.0 | |
| All-Red Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 2.0 | 3.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 7.0 | | | 7.0 | | | 7.0 | | | 7.0 | |
| Lead/Lag | | | | | | | Lag | Lag | | Lead | | |
| Lead-Lag Optimize? | | | | | | | Yes | Yes | | Yes | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | Max | Max | | Max | Max | | C-Max | C-Max | | None | C-Max | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | | 0 | |
| Act Effct Green (s) | | 27.0 | | | 27.0 | | | 69.0 | | | 69.0 | |
| Actuated g/C Ratio | | 0.25 | | | 0.25 | | | 0.63 | | | 0.63 | |
| v/c Ratio | | 0.46 | | | 0.36 | | | 0.11 | | | 0.33 | |
| Control Delay | | 37.3 | | | 36.9 | | | 14.4 | | | 10.0 | |
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.6 | |
| Total Delay | | 37.3 | | | 36.9 | | | 14.4 | | | 10.5 | |
| LOS | | D | | | D | | | B | | | B | |
| Approach Delay | | 37.3 | | | 36.9 | | | 14.4 | | | 10.5 | |
| Approach LOS | | D | | | D | | | B | | | B | |

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 2:SWTL and 6:NETL, Start of Yellow, Master Intersection
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.46
Intersection Signal Delay: 18.4 Intersection LOS: B
Intersection Capacity Utilization 49.0% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 22: La Fayette Street/Bleecker Street & Genesee Street

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 22 | 125 | 27 | 11 | 45 | 20 | 26 | 163 | 22 | 95 | 371 | 25 |
| Future Volume (vph) | 22 | 125 | 27 | 11 | 45 | 20 | 26 | 163 | 22 | 95 | 371 | 25 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Frt | | 0.979 | | | 0.964 | | | 0.984 | | | 0.992 | |
| Flt Protected | | 0.994 | | | 0.993 | | | 0.994 | | | 0.990 | |
| Satd. Flow (prot) | 0 | 1793 | 0 | 0 | 1606 | 0 | 0 | 3320 | 0 | 0 | 3422 | 0 |
| Flt Permitted | | 0.951 | | | 0.938 | | | 0.835 | | | 0.805 | |
| Satd. Flow (perm) | 0 | 1716 | 0 | 0 | 1517 | 0 | 0 | 2789 | 0 | 0 | 2782 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 8 | | | 16 | | | 17 | | | 9 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 682 | | | 274 | | | 195 | | | 420 | |
| Travel Time (s) | | 15.5 | | | 6.2 | | | 4.4 | | | 9.5 | |
| Peak Hour Factor | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| Heavy Vehicles (%) | 4% | 1% | 12% | 54% | 9% | 0% | 2% | 3% | 36% | 2% | 4% | 4% |
| Adj. Flow (vph) | 28 | 156 | 34 | 14 | 56 | 25 | 33 | 204 | 28 | 119 | 464 | 31 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 218 | 0 | 0 | 95 | 0 | 0 | 265 | 0 | 0 | 614 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | pm+pt | NA | |
| Protected Phases | | 4 | | | 8 | | | 6 | | 5 | 2 | |
| Permitted Phases | 4 | | | 8 | | | 6 | | | 2 | | |
| Detector Phase | 4 | 4 | | 8 | 8 | | 6 | 6 | | 5 | 2 | |
| Switch Phase | | | | | | | | | | | | |





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 4.0 | 5.0 | |
| Minimum Split (s) | 12.0 | 12.0 | | 12.0 | 12.0 | | 23.5 | 23.5 | | 10.0 | 23.5 | |
| Total Split (s) | 36.0 | 36.0 | | 36.0 | 36.0 | | 62.0 | 62.0 | | 12.0 | 74.0 | |
| Total Split (%) | 32.7% | 32.7% | | 32.7% | 32.7% | | 56.4% | 56.4% | | 10.9% | 67.3% | |
| Maximum Green (s) | 29.0 | 29.0 | | 29.0 | 29.0 | | 55.0 | 55.0 | | 6.0 | 67.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 2.0 | 3.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 7.0 | | | 7.0 | | | 7.0 | | | 7.0 | |
| Lead/Lag | | | | | | | Lag | Lag | | Lead | | |
| Lead-Lag Optimize? | | | | | | | Yes | Yes | | Yes | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | Max | Max | | Max | Max | | C-Max | C-Max | | None | C-Max | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | | 0 | |
| Act Effct Green (s) | | 29.0 | | | 29.0 | | | 67.0 | | | 67.0 | |
| Actuated g/C Ratio | | 0.26 | | | 0.26 | | | 0.61 | | | 0.61 | |
| v/c Ratio | | 0.48 | | | 0.23 | | | 0.16 | | | 0.36 | |
| Control Delay | | 37.3 | | | 28.1 | | | 10.3 | | | 9.9 | |
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.3 | |
| Total Delay | | 37.3 | | | 28.1 | | | 10.3 | | | 10.2 | |
| LOS | | D | | | C | | | B | | | B | |
| Approach Delay | | 37.3 | | | 28.1 | | | 10.3 | | | 10.2 | |
| Approach LOS | | D | | | C | | | B | | | B | |

**Intersection Summary**

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 68 (62%), Referenced to phase 2:SWTL and 6:NETL, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.48
Intersection Signal Delay: 16.6 Intersection LOS: B
Intersection Capacity Utilization 49.4% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 23: Columbia Street/Elizabeth Street

| Lane Group | EBL | EBR | SEL | SET | SER | NWL | NWT | NWR | SWL | SWR | SWR2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 77 | 29 | 26 | 75 | 0 | 512 | 52 | 0 |
| Future Volume (vph) | 0 | 0 | 0 | 77 | 29 | 26 | 75 | 0 | 512 | 52 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 0 | | 0 | 100 | | 0 | 0 | 0 | |
| Storage Lanes | 0 | 0 | 0 | | 0 | 1 | | 0 | 1 | 2 | |
| Taper Length (ft) | 25 | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | | 0.959 | | | | | | 0.850 | |
| Flt Protected | | | | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 0 | 0 | 3388 | 0 | 1805 | 1776 | 0 | 1703 | 1583 | 1863 |
| Flt Permitted | | | | | | 0.889 | | | 0.950 | | |
| Satd. Flow (perm) | 0 | 0 | 0 | 3388 | 0 | 1689 | 1776 | 0 | 1703 | 1583 | 1863 |
| Right Turn on Red | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | | 35 | | | | | | | |
| Link Speed (mph) | 30 | | | 30 | | | 30 | | 30 | | |
| Link Distance (ft) | 664 | | | 342 | | | 169 | | 360 | | |
| Travel Time (s) | 15.1 | | | 7.8 | | | 3.8 | | 8.2 | | |
| Peak Hour Factor | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 |
| Heavy Vehicles (%) | 0% | 0% | 0% | 3% | 0% | 0% | 7% | 0% | 6% | 2% | 2% |
| Adj. Flow (vph) | 0 | 0 | 0 | 92 | 35 | 31 | 89 | 0 | 610 | 62 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 0 | 127 | 0 | 31 | 89 | 0 | 610 | 62 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Right | Left | Left | Right | Left | Right | Right |
| Median Width(ft) | 0 | | | 12 | | | 12 | | 12 | | |
| Link Offset(ft) | 0 | | | 0 | | | 0 | | 0 | | |
| Crosswalk Width(ft) | 16 | | | 16 | | | 16 | | 16 | | |
| Two way Left Turn Lane | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | | 9 | 15 | | 9 | 15 | 9 | 9 |
| Number of Detectors | | | | 2 | | 1 | 2 | | 1 | 1 | 1 |
| Detector Template | | | | Thru | | Left | Thru | | Left | Right | Right |
| Leading Detector (ft) | | | | 100 | | 20 | 100 | | 20 | 20 | 20 |
| Trailing Detector (ft) | | | | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Detector 1 Position(ft) | | | | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Detector 1 Size(ft) | | | | 6 | | 20 | 6 | | 20 | 20 | 20 |
| Detector 1 Type | | | | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | |
| Detector 1 Extend (s) | | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(ft) | | | | 94 | | | 94 | | | | |
| Detector 2 Size(ft) | | | | 6 | | | 6 | | | | |
| Detector 2 Type | | | | Cl+Ex | | | Cl+Ex | | | | |
| Detector 2 Channel | | | | | | | | | | | |
| Detector 2 Extend (s) | | | | 0.0 | | | 0.0 | | | | |
| Turn Type | | | | NA | | Perm | NA | | Perm | Prot | Perm |
| Protected Phases | | | | 4 | | | 8 | | | 2 | |



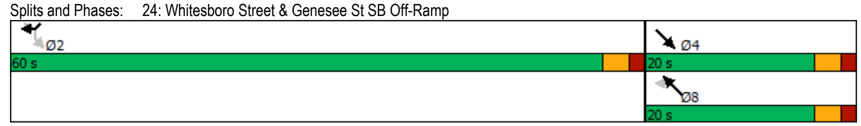


| Lane Group | EBL | EBR | SEL | SET | SER | NWL | NWT | NWR | SWL | SWR | SWR2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Permitted Phases | | | | | | 8 | | | 2 | | 2 |
| Detector Phase | | | | 4 | | 8 | 8 | | 2 | 2 | 2 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | | | | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 |
| Minimum Split (s) | | | | 10.0 | | 10.0 | 10.0 | | 26.0 | 26.0 | 26.0 |
| Total Split (s) | | | | 20.0 | | 20.0 | 20.0 | | 60.0 | 60.0 | 60.0 |
| Total Split (%) | | | | 25.0% | | 25.0% | 25.0% | | 75.0% | 75.0% | 75.0% |
| Maximum Green (s) | | | | 16.0 | | 16.0 | 16.0 | | 56.0 | 56.0 | 56.0 |
| Yellow Time (s) | | | | 2.5 | | 2.5 | 2.5 | | 2.5 | 2.5 | 2.5 |
| All-Red Time (s) | | | | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | 1.5 |
| Lost Time Adjust (s) | | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | | | | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 |
| Lead/Lag | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | |
| Vehicle Extension (s) | | | | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | 2.0 |
| Recall Mode | | | | None | | None | None | | None | None | None |
| Walk Time (s) | | | | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | | | 14.0 | | 14.0 | 14.0 | | 14.0 | 14.0 | 14.0 |
| Pedestrian Calls (#/hr) | | | | 25 | | 25 | 25 | | 25 | 25 | 25 |
| Act Effct Green (s) | | | | 9.3 | | 9.5 | 9.5 | | 21.4 | 21.4 | |
| Actuated g/C Ratio | | | | 0.29 | | 0.30 | 0.30 | | 0.67 | 0.67 | |
| v/c Ratio | | | | 0.12 | | 0.06 | 0.17 | | 0.53 | 0.06 | |
| Control Delay | | | | 10.2 | | 13.8 | 13.9 | | 7.9 | 4.8 | |
| Queue Delay | | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | | | | 10.2 | | 13.8 | 13.9 | | 7.9 | 4.8 | |
| LOS | | | | B | | B | B | | A | A | |
| Approach Delay | | | | 10.2 | | | 13.8 | | 7.6 | | |
| Approach LOS | | | | B | | | B | | A | | |

**Intersection Summary**

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 31.8
Natural Cycle: 40
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.53
Intersection Signal Delay: 8.8 Intersection LOS: A
Intersection Capacity Utilization 43.1% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 24: Whitesboro Street & Genesee St SB Off-Ramp



| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 16 | 6 | 3 | 3 | 186 | 7 | 82 | 287 | 29 |
| Future Volume (vph) | 0 | 0 | 0 | 16 | 6 | 3 | 3 | 186 | 7 | 82 | 287 | 29 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Frt | | | | | 0.986 | | | 0.995 | | | 0.989 | |
| Flt Protected | | | | | 0.969 | | | 0.999 | | | 0.990 | |
| Satd. Flow (prot) | 0 | 0 | 0 | 0 | 1748 | 0 | 0 | 3365 | 0 | 0 | 3326 | 0 |
| Flt Permitted | | | | | 0.969 | | | 0.952 | | | 0.827 | |
| Satd. Flow (perm) | 0 | 0 | 0 | 0 | 1748 | 0 | 0 | 3206 | 0 | 0 | 2778 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | No |
| Satd. Flow (RTOR) | | | | | 3 | | | 7 | | | | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 313 | | | 160 | | | 152 | | | 194 | |
| Travel Time (s) | | 7.1 | | | 3.6 | | | 3.5 | | | 4.4 | |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Heavy Vehicles (%) | 0% | 0% | 0% | 6% | 0% | 0% | 0% | 7% | 0% | 0% | 8% | 7% |
| Adj. Flow (vph) | 0 | 0 | 0 | 18 | 7 | 3 | 3 | 211 | 8 | 93 | 326 | 33 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 0 | 0 | 28 | 0 | 0 | 222 | 0 | 0 | 452 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | | | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | | | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | | | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | | | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | | | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | | | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | | | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | | | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | | | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | | | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | | | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | | | | 4 | | | 2 | | | 2 | |
| Permitted Phases | | | | 4 | | | 2 | | | 2 | | |
| Detector Phase | | | | 4 | 4 | | 2 | 2 | | 2 | 2 | |
| Switch Phase | | | | | | | | | | | | |



Lanes, Volumes, Timings
25: Blandina Street & Genesee Street 02/04/2019

| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Initial (s) | | | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Minimum Split (s) | | | | 10.5 | 10.5 | | 28.0 | 28.0 | | 28.0 | 28.0 | |
| Total Split (s) | | | | 30.0 | 30.0 | | 80.0 | 80.0 | | 80.0 | 80.0 | |
| Total Split (%) | | | | 27.3% | 27.3% | | 72.7% | 72.7% | | 72.7% | 72.7% | |
| Maximum Green (s) | | | | 24.5 | 24.5 | | 74.5 | 74.5 | | 74.5 | 74.5 | |
| Yellow Time (s) | | | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | | | | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Lost Time Adjust (s) | | | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | | | | 5.5 | | | 5.5 | | | 5.5 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | | | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | | | | None | None | | C-Max | C-Max | | C-Max | C-Max | |
| Walk Time (s) | | | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | | | | 11.0 | 11.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | |
| Pedestrian Calls (#/hr) | | | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | | | | 7.2 | | | 98.5 | | | 98.5 | |
| Actuated g/C Ratio | | | | | 0.07 | | | 0.90 | | | 0.90 | |
| v/c Ratio | | | | | 0.24 | | | 0.08 | | | 0.18 | |
| Control Delay | | | | | 49.2 | | | 1.2 | | | 4.4 | |
| Queue Delay | | | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | | | | 49.2 | | | 1.2 | | | 4.4 | |
| LOS | | | | | D | | | A | | | A | |
| Approach Delay | | | | | 49.2 | | | 1.2 | | | 4.4 | |
| Approach LOS | | | | | D | | | A | | | A | |

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 7 (6%), Referenced to phase 2:NESW and 6:, Start of Yellow
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.24
Intersection Signal Delay: 5.1 Intersection LOS: A
Intersection Capacity Utilization 34.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 25: Blandina Street & Genesee Street

| Lane Group | NBL | NBR | NET | NER | SWL | SWT | Ø4 |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 200 | 17 | 22 | 269 | |
| Future Volume (vph) | 0 | 0 | 200 | 17 | 22 | 269 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 | |
| Frt | | | 0.988 | | | | |
| Flt Protected | | | | | | 0.996 | |
| Satd. Flow (prot) | 0 | 0 | 3211 | 0 | 0 | 3348 | |
| Flt Permitted | | | | | | 0.923 | |
| Satd. Flow (perm) | 0 | 0 | 3211 | 0 | 0 | 3103 | |
| Right Turn on Red | | Yes | | Yes | | | |
| Satd. Flow (RTOR) | | | 18 | | | | |
| Link Speed (mph) | 30 | | 30 | | | 30 | |
| Link Distance (ft) | 399 | | 483 | | | 150 | |
| Travel Time (s) | 9.1 | | 11.0 | | | 3.4 | |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | |
| Heavy Vehicles (%) | 0% | 0% | 6% | 0% | 0% | 8% | |
| Parking (#/hr) | | | 0 | | | | |
| Adj. Flow (vph) | 0 | 0 | 206 | 18 | 23 | 277 | |
| Shared Lane Traffic (%) | | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 224 | 0 | 0 | 300 | |
| Enter Blocked Intersection | No | No | No | No | No | No | |
| Lane Alignment | Left | Right | Left | Right | Left | Left | |
| Median Width(ft) | 0 | | 0 | | | 0 | |
| Link Offset(ft) | 0 | | 0 | | | 0 | |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.07 | 1.00 | 1.00 | 1.00 | |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | | |
| Number of Detectors | | | 2 | | 1 | 2 | |
| Detector Template | | | Thru | | Left | Thru | |
| Leading Detector (ft) | | | 100 | | 20 | 100 | |
| Trailing Detector (ft) | | | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | | | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | | | 6 | | 20 | 6 | |
| Detector 1 Type | | | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | |
| Detector 1 Extend (s) | | | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | | | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | | | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | | 6 | | | 6 | |
| Detector 2 Type | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | |
| Detector 2 Extend (s) | | | 0.0 | | | 0.0 | |
| Turn Type | | | NA | | Perm | NA | |
| Protected Phases | | | 6 | | | 2 | 4 |
| Permitted Phases | | | | | 2 | | |
| Detector Phase | | | 6 | | 2 | 2 | |





| Lane Group | NBL | NBR | NET | NER | SWL | SWT | Ø4 |
|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | |
| Minimum Initial (s) | | | 5.0 | | 5.0 | 5.0 | 15.0 |
| Minimum Split (s) | | | 23.0 | | 27.0 | 27.0 | 22.0 |
| Total Split (s) | | | 88.0 | | 88.0 | 88.0 | 22.0 |
| Total Split (%) | | | 80.0% | | 80.0% | 80.0% | 20% |
| Maximum Green (s) | | | 83.0 | | 83.0 | 83.0 | 18.0 |
| Yellow Time (s) | | | 3.0 | | 3.0 | 3.0 | 3.5 |
| All-Red Time (s) | | | 2.0 | | 2.0 | 2.0 | 0.5 |
| Lost Time Adjust (s) | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | |
| Lead-Lag Optimize? | | | | | | | |
| Vehicle Extension (s) | | | 3.0 | | 3.0 | 3.0 | 3.0 |
| Recall Mode | | | C-Max | | C-Max | C-Max | None |
| Walk Time (s) | | | 0.0 | | 7.0 | 7.0 | 5.0 |
| Flash Dont Walk (s) | | | 11.0 | | 15.0 | 15.0 | 11.0 |
| Pedestrian Calls (#/hr) | | | 0 | | 0 | 0 | 6 |
| Act Effct Green (s) | | | 105.0 | | | 105.0 | |
| Actuated g/C Ratio | | | 0.95 | | | 0.95 | |
| v/c Ratio | | | 0.07 | | | 0.10 | |
| Control Delay | | | 0.8 | | | 0.2 | |
| Queue Delay | | | 0.0 | | | 0.0 | |
| Total Delay | | | 0.8 | | | 0.2 | |
| LOS | | | A | | | A | |
| Approach Delay | | | 0.8 | | | 0.2 | |
| Approach LOS | | | A | | | A | |

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 12 (11%), Referenced to phase 2:SWTL and 6:NET, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.10
Intersection Signal Delay: 0.4 Intersection LOS: A
Intersection Capacity Utilization 22.5% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 26: Genesee St & Bank Place

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 4 | 307 | 65 | 1 | 173 | 25 | 10 | 252 | 22 | 6 | 236 | 32 |
| Future Volume (vph) | 4 | 307 | 65 | 1 | 173 | 25 | 10 | 252 | 22 | 6 | 236 | 32 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Frt | | 0.974 | | | 0.981 | | | 0.989 | | | 0.982 | |
| Flt Protected | | | | | | | | 0.998 | | | 0.999 | |
| Satd. Flow (prot) | 0 | 3430 | 0 | 0 | 3406 | 0 | 0 | 3259 | 0 | 0 | 3117 | 0 |
| Flt Permitted | | 0.952 | | | 0.954 | | | 0.941 | | | 0.949 | |
| Satd. Flow (perm) | 0 | 3266 | 0 | 0 | 3249 | 0 | 0 | 3073 | 0 | 0 | 2961 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | No | | | Yes |
| Satd. Flow (RTOR) | | 22 | | | 14 | | | | | | 25 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 183 | | | 224 | | | 440 | | | 483 | |
| Travel Time (s) | | 4.2 | | | 5.1 | | | 10.0 | | | 11.0 | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Heavy Vehicles (%) | 0% | 2% | 5% | 0% | 4% | 4% | 0% | 4% | 4% | 17% | 8% | 6% |
| Parking (#/hr) | | | | | | | | 0 | | | 0 | |
| Adj. Flow (vph) | 4 | 327 | 69 | 1 | 184 | 27 | 11 | 268 | 23 | 6 | 251 | 34 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 400 | 0 | 0 | 212 | 0 | 0 | 302 | 0 | 0 | 291 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.07 | 1.00 | 1.00 | 1.07 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Detector Phase | 4 | 4 | | 8 | 8 | | 2 | 2 | | 6 | 6 | |





| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Minimum Split (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Total Split (s) | 35.0 | 35.0 | | 35.0 | 35.0 | | 75.0 | 75.0 | | 75.0 | 75.0 | |
| Total Split (%) | 31.8% | 31.8% | | 31.8% | 31.8% | | 68.2% | 68.2% | | 68.2% | 68.2% | |
| Maximum Green (s) | 29.0 | 29.0 | | 29.0 | 29.0 | | 69.0 | 69.0 | | 69.0 | 69.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | | 6.0 | | | 6.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | Max | Max | | Max | Max | | C-Max | C-Max | | C-Max | C-Max | |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 15.0 | 15.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 29.0 | | | 29.0 | | | 69.0 | | | 69.0 | |
| Actuated g/C Ratio | | 0.26 | | | 0.26 | | | 0.63 | | | 0.63 | |
| v/c Ratio | | 0.46 | | | 0.24 | | | 0.16 | | | 0.16 | |
| Control Delay | | 33.9 | | | 30.6 | | | 8.7 | | | 8.0 | |
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 33.9 | | | 30.6 | | | 8.7 | | | 8.0 | |
| LOS | | C | | | C | | | A | | | A | |
| Approach Delay | | 33.9 | | | 30.6 | | | 8.7 | | | 8.0 | |
| Approach LOS | | C | | | C | | | A | | | A | |

Intersection Summary
Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 19 (17%), Referenced to phase 2:NETL and 6:SWTL, Start of Yellow
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.46
Intersection Signal Delay: 20.8 Intersection LOS: C
Intersection Capacity Utilization 38.5% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 27: Genesee St & Hopper St

| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR | Ø1 | Ø2 | Ø8 |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 304 | 0 | 0 | 250 | 23 | 468 | | | |
| Future Volume (vph) | 304 | 0 | 0 | 250 | 23 | 468 | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | | | |
| Lane Util. Factor | 0.95 | 1.00 | 1.00 | 0.91 | 1.00 | 0.88 | | | |
| Frt | | | | | | 0.850 | | | |
| Flt Protected | | | | | 0.950 | | | | |
| Satd. Flow (prot) | 3539 | 0 | 0 | 5085 | 1770 | 2787 | | | |
| Flt Permitted | | | | | 0.950 | | | | |
| Satd. Flow (perm) | 3539 | 0 | 0 | 5085 | 1770 | 2787 | | | |
| Right Turn on Red | | Yes | | | | Yes | | | |
| Satd. Flow (RTOR) | | | | | | 509 | | | |
| Link Speed (mph) | 30 | | | 30 | 30 | | | | |
| Link Distance (ft) | 210 | | | 357 | 611 | | | | |
| Travel Time (s) | 4.8 | | | 8.1 | 13.9 | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | | |
| Adj. Flow (vph) | 330 | 0 | 0 | 272 | 25 | 509 | | | |
| Shared Lane Traffic (%) | | | | | | | | | |
| Lane Group Flow (vph) | 330 | 0 | 0 | 272 | 25 | 509 | | | |
| Enter Blocked Intersection | No | No | No | No | No | No | | | |
| Lane Alignment | Left | Right | Left | Left | Left | Right | | | |
| Median Width(ft) | 12 | | | 12 | 12 | | | | |
| Link Offset(ft) | 0 | | | 0 | 0 | | | | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | | | | |
| Two way Left Turn Lane | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Turning Speed (mph) | | 9 | 15 | | 15 | 9 | | | |
| Number of Detectors | 2 | | | 2 | 1 | 1 | | | |
| Detector Template | Thru | | | Thru | Left | Right | | | |
| Leading Detector (ft) | 100 | | | 100 | 20 | 20 | | | |
| Trailing Detector (ft) | 0 | | | 0 | 0 | 0 | | | |
| Detector 1 Position(ft) | 0 | | | 0 | 0 | 0 | | | |
| Detector 1 Size(ft) | 6 | | | 6 | 20 | 20 | | | |
| Detector 1 Type | Cl+Ex | | | Cl+Ex | Cl+Ex | Cl+Ex | | | |
| Detector 1 Channel | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | | | 0.0 | 0.0 | 0.0 | | | |
| Detector 1 Queue (s) | 0.0 | | | 0.0 | 0.0 | 0.0 | | | |
| Detector 1 Delay (s) | 0.0 | | | 0.0 | 0.0 | 0.0 | | | |
| Detector 2 Position(ft) | 94 | | | 94 | | | | | |
| Detector 2 Size(ft) | 6 | | | 6 | | | | | |
| Detector 2 Type | Cl+Ex | | | Cl+Ex | | | | | |
| Detector 2 Channel | | | | | | | | | |
| Detector 2 Extend (s) | 0.0 | | | 0.0 | | | | | |
| Turn Type | NA | | | NA | Prot | custom | | | |
| Protected Phases | 2 8 | | | 6 | 9 | 9 | 1 | 2 | 8 |
| Permitted Phases | | | | | | 2 | | | |
| Detector Phase | 2 8 | | | 6 | 9 | 9 | | | |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | | | | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |



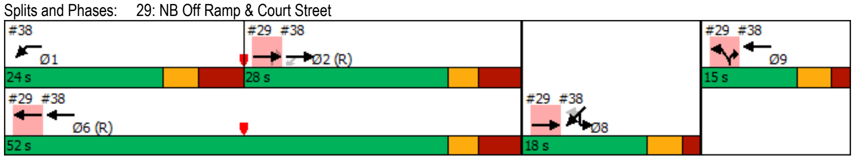


| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR | Ø1 | Ø2 | Ø8 |
|---|---|---|---|---|---|---|---|---|---|
| Minimum Split (s) | | | | 23.5 | 21.5 | 21.5 | 12.0 | 23.5 | 21.5 |
| Total Split (s) | | | | 52.0 | 15.0 | 15.0 | 24.0 | 28.0 | 18.0 |
| Total Split (%) | | | | 61.2% | 17.6% | 17.6% | 28% | 33% | 21% |
| Maximum Green (s) | | | | 44.5 | 9.5 | 9.5 | 16.0 | 20.5 | 12.5 |
| Yellow Time (s) | | | | 3.0 | 3.5 | 3.5 | 3.5 | 3.0 | 3.5 |
| All-Red Time (s) | | | | 4.5 | 2.0 | 2.0 | 4.5 | 4.5 | 2.0 |
| Lost Time Adjust (s) | | | | 0.0 | 0.0 | 0.0 | | | |
| Total Lost Time (s) | | | | 7.5 | 5.5 | 5.5 | | | |
| Lead/Lag | | | | | | | Lead | Lag | |
| Lead-Lag Optimize? | | | | | | | Yes | Yes | |
| Vehicle Extension (s) | | | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | | | | C-Max | Max | Max | None | C-Max | None |
| Walk Time (s) | | | | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 |
| Flash Dont Walk (s) | | | | 11.0 | 11.0 | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | | | 0 | 0 | 0 | | 0 | 0 |
| Act Effct Green (s) | 41.2 | | | 44.5 | 13.1 | 41.8 | | | |
| Actuated g/C Ratio | 0.48 | | | 0.52 | 0.15 | 0.49 | | | |
| v/c Ratio | 0.19 | | | 0.10 | 0.09 | 0.31 | | | |
| Control Delay | 5.0 | | | 4.6 | 33.7 | 1.3 | | | |
| Queue Delay | 0.2 | | | 0.0 | 0.0 | 0.0 | | | |
| Total Delay | 5.2 | | | 4.6 | 33.7 | 1.3 | | | |
| LOS | A | | | A | C | A | | | |
| Approach Delay | 5.2 | | | 4.6 | 2.8 | | | | |
| Approach LOS | A | | | A | A | | | | |

**Intersection Summary**

Area Type: Other
Cycle Length: 85
Actuated Cycle Length: 85
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.46
Intersection Signal Delay: 3.9 Intersection LOS: A
Intersection Capacity Utilization 35.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 29: NB Off Ramp & Court Street



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 204 | 66 | 165 | 108 | 0 | 0 | 0 | 0 | 100 | 25 | 10 |
| Future Volume (vph) | 0 | 204 | 66 | 165 | 108 | 0 | 0 | 0 | 0 | 100 | 25 | 10 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 0.97 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 |
| Frt | | | 0.850 | | | | | | | | | 0.850 |
| Flt Protected | | | | 0.950 | | | | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 3539 | 1583 | 3433 | 1863 | 0 | 0 | 0 | 0 | 3433 | 1863 | 1583 |
| Flt Permitted | | | | 0.950 | | | | | | 0.950 | | |
| Satd. Flow (perm) | 0 | 3539 | 1583 | 3433 | 1863 | 0 | 0 | 0 | 0 | 3433 | 1863 | 1583 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 205 | | | | | | | | | 231 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 605 | | | 210 | | | 341 | | | 460 | |
| Travel Time (s) | | 13.8 | | | 4.8 | | | 7.8 | | | 10.5 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 0 | 222 | 72 | 179 | 117 | 0 | 0 | 0 | 0 | 109 | 27 | 11 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 222 | 72 | 179 | 117 | 0 | 0 | 0 | 0 | 109 | 27 | 11 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 24 | | | 24 | | | 24 | | | 24 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | | 2 | 1 | 1 | 2 | | | | | 1 | 2 | 1 |
| Detector Template | | Thru | Right | Left | Thru | | | | | Left | Thru | Right |
| Leading Detector (ft) | | 100 | 20 | 20 | 100 | | | | | 20 | 100 | 20 |
| Trailing Detector (ft) | | 0 | 0 | 0 | 0 | | | | | 0 | 0 | 0 |
| Detector 1 Position(ft) | | 0 | 0 | 0 | 0 | | | | | 0 | 0 | 0 |
| Detector 1 Size(ft) | | 6 | 20 | 20 | 6 | | | | | 20 | 6 | 20 |
| Detector 1 Type | | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | | | | | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | | 0.0 | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | | 0.0 | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | | 0.0 | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(ft) | | 94 | | | 94 | | | | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | | | 0.0 | |
| Turn Type | | NA | Perm | Prot | NA | | | | | Split | NA | Perm |
| Protected Phases | | 2 | | 1 | 6 9 | | | | | 8 | 8 | |
| Permitted Phases | | | 2 | | | | | | | | | 8 |
| Detector Phase | | 2 | 2 | 1 | 6 9 | | | | | 8 | 8 | 8 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | 4.0 | 4.0 | 4.0 | | | | | | 4.0 | 4.0 | 4.0 |



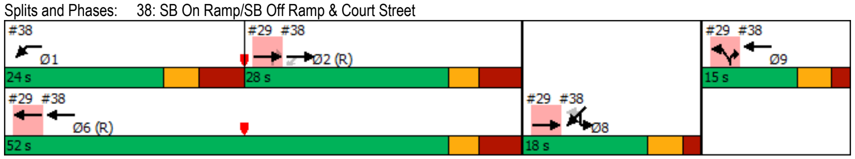


| Lane Group | Ø6 | Ø9 |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | | |
| Future Volume (vph) | | |
| Ideal Flow (vphpl) | | |
| Lane Util. Factor | | |
| Frt | | |
| Flt Protected | | |
| Satd. Flow (prot) | | |
| Flt Permitted | | |
| Satd. Flow (perm) | | |
| Right Turn on Red | | |
| Satd. Flow (RTOR) | | |
| Link Speed (mph) | | |
| Link Distance (ft) | | |
| Travel Time (s) | | |
| Peak Hour Factor | | |
| Adj. Flow (vph) | | |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | | |
| Enter Blocked Intersection | | |
| Lane Alignment | | |
| Median Width(ft) | | |
| Link Offset(ft) | | |
| Crosswalk Width(ft) | | |
| Two way Left Turn Lane | | |
| Headway Factor | | |
| Turning Speed (mph) | | |
| Number of Detectors | | |
| Detector Template | | |
| Leading Detector (ft) | | |
| Trailing Detector (ft) | | |
| Detector 1 Position(ft) | | |
| Detector 1 Size(ft) | | |
| Detector 1 Type | | |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | | |
| Detector 1 Queue (s) | | |
| Detector 1 Delay (s) | | |
| Detector 2 Position(ft) | | |
| Detector 2 Size(ft) | | |
| Detector 2 Type | | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | | |
| Turn Type | | |
| Protected Phases | 6 | 9 |
| Permitted Phases | | |
| Detector Phase | | |
| Switch Phase | | |
| Minimum Initial (s) | 4.0 | 4.0 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Split (s) | | 23.5 | 23.5 | 12.0 | | | | | | 21.5 | 21.5 | 21.5 |
| Total Split (s) | | 28.0 | 28.0 | 24.0 | | | | | | 18.0 | 18.0 | 18.0 |
| Total Split (%) | | 32.9% | 32.9% | 28.2% | | | | | | 21.2% | 21.2% | 21.2% |
| Maximum Green (s) | | 20.5 | 20.5 | 16.0 | | | | | | 12.5 | 12.5 | 12.5 |
| Yellow Time (s) | | 3.0 | 3.0 | 3.5 | | | | | | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | | 4.5 | 4.5 | 4.5 | | | | | | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | | 0.0 | 0.0 | 0.0 | | | | | | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | | 7.5 | 7.5 | 8.0 | | | | | | 5.5 | 5.5 | 5.5 |
| Lead/Lag | | Lag | Lag | Lead | | | | | | | | |
| Lead-Lag Optimize? | | Yes | Yes | Yes | | | | | | | | |
| Vehicle Extension (s) | | 3.0 | 3.0 | 3.0 | | | | | | 3.0 | 3.0 | 3.0 |
| Recall Mode | | C-Max | C-Max | None | | | | | | None | None | None |
| Walk Time (s) | | 5.0 | 5.0 | | | | | | | 5.0 | 5.0 | 5.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | | | | | | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 0 | 0 | | | | | | | 0 | 0 | 0 |
| Act Effct Green (s) | | 26.8 | 26.8 | 9.7 | 63.1 | | | | | 8.9 | 8.9 | 8.9 |
| Actuated g/C Ratio | | 0.32 | 0.32 | 0.11 | 0.74 | | | | | 0.10 | 0.10 | 0.10 |
| v/c Ratio | | 0.20 | 0.11 | 0.46 | 0.08 | | | | | 0.30 | 0.14 | 0.03 |
| Control Delay | | 22.4 | 0.4 | 27.2 | 2.5 | | | | | 36.5 | 34.8 | 0.1 |
| Queue Delay | | 0.0 | 0.0 | 0.0 | 0.4 | | | | | 0.0 | 0.0 | 0.0 |
| Total Delay | | 22.4 | 0.4 | 27.2 | 2.9 | | | | | 36.5 | 34.8 | 0.1 |
| LOS | | C | A | C | A | | | | | D | C | A |
| Approach Delay | | 17.0 | | | 17.6 | | | | | | 33.5 | |
| Approach LOS | | B | | | B | | | | | | C | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 85 | |
| Actuated Cycle Length: 85 | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green | |
| Natural Cycle: 80 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.46 | |
| Intersection Signal Delay: 20.5 | Intersection LOS: C |
| Intersection Capacity Utilization 35.6% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 38: SB On Ramp/SB Off Ramp & Court Street








| Lane Group | Ø6 | Ø9 |
|---|---|---|
| Minimum Split (s) | 23.5 | 21.5 |
| Total Split (s) | 52.0 | 15.0 |
| Total Split (%) | 61% | 18% |
| Maximum Green (s) | 44.5 | 9.5 |
| Yellow Time (s) | 3.0 | 3.5 |
| All-Red Time (s) | 4.5 | 2.0 |
| Lost Time Adjust (s) | | |
| Total Lost Time (s) | | |
| Lead/Lag | | |
| Lead-Lag Optimize? | | |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | C-Max | Max |
| Walk Time (s) | 5.0 | 5.0 |
| Flash Dont Walk (s) | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | 0 | 0 |
| Act Effct Green (s) | | |
| Actuated g/C Ratio | | |
| v/c Ratio | | |
| Control Delay | | |
| Queue Delay | | |
| Total Delay | | |
| LOS | | |
| Approach Delay | | |
| Approach LOS | | |

Intersection Summary

# Existing PM Synchro Reports

| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR | Ø1 | Ø2 | Ø8 |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 422 | 0 | 0 | 547 | 32 | 163 | | | |
| Future Volume (vph) | 422 | 0 | 0 | 547 | 32 | 163 | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | | | |
| Lane Util. Factor | 0.95 | 1.00 | 1.00 | 0.91 | 1.00 | 0.88 | | | |
| Frt | | | | | | 0.850 | | | |
| Flt Protected | | | | | 0.950 | | | | |
| Satd. Flow (prot) | 3574 | 0 | 0 | 5136 | 1805 | 2814 | | | |
| Flt Permitted | | | | | 0.950 | | | | |
| Satd. Flow (perm) | 3574 | 0 | 0 | 5136 | 1805 | 2814 | | | |
| Right Turn on Red | | Yes | | | | No | | | |
| Satd. Flow (RTOR) | | | | | | | | | |
| Link Speed (mph) | 30 | | | 30 | 30 | | | | |
| Link Distance (ft) | 186 | | | 379 | 646 | | | | |
| Travel Time (s) | 4.2 | | | 8.6 | 14.7 | | | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | | | |
| Heavy Vehicles (%) | 1% | 1% | 1% | 1% | 0% | 1% | | | |
| Adj. Flow (vph) | 469 | 0 | 0 | 608 | 36 | 181 | | | |
| Shared Lane Traffic (%) | | | | | | | | | |
| Lane Group Flow (vph) | 469 | 0 | 0 | 608 | 36 | 181 | | | |
| Enter Blocked Intersection | No | No | No | No | No | No | | | |
| Lane Alignment | Left | Right | Left | Left | Left | Right | | | |
| Median Width(ft) | 12 | | | 12 | 12 | | | | |
| Link Offset(ft) | 0 | | | 0 | 0 | | | | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | | | | |
| Two way Left Turn Lane | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Turning Speed (mph) | | 9 | 15 | | 15 | 9 | | | |
| Number of Detectors | 2 | | | 2 | 1 | 1 | | | |
| Detector Template | Thru | | | Thru | Left | Right | | | |
| Leading Detector (ft) | 100 | | | 100 | 20 | 20 | | | |
| Trailing Detector (ft) | 0 | | | 0 | 0 | 0 | | | |
| Detector 1 Position(ft) | 0 | | | 0 | 0 | 0 | | | |
| Detector 1 Size(ft) | 6 | | | 6 | 20 | 20 | | | |
| Detector 1 Type | Cl+Ex | | | Cl+Ex | Cl+Ex | Cl+Ex | | | |
| Detector 1 Channel | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | | | 0.0 | 0.0 | 0.0 | | | |
| Detector 1 Queue (s) | 0.0 | | | 0.0 | 0.0 | 0.0 | | | |
| Detector 1 Delay (s) | 0.0 | | | 0.0 | 0.0 | 0.0 | | | |
| Detector 2 Position(ft) | 94 | | | 94 | | | | | |
| Detector 2 Size(ft) | 6 | | | 6 | | | | | |
| Detector 2 Type | Cl+Ex | | | Cl+Ex | | | | | |
| Detector 2 Channel | | | | | | | | | |
| Detector 2 Extend (s) | 0.0 | | | 0.0 | | | | | |
| Turn Type | NA | | | NA | Prot | Prot | | | |
| Protected Phases | 2 8 | | | 6 | 9 | 9 | 1 | 2 | 8 |
| Permitted Phases | | | | | | | | | |
| Detector Phase | 2 8 | | | 6 | 9 | 9 | | | |
| Switch Phase | | | | | | | | | |



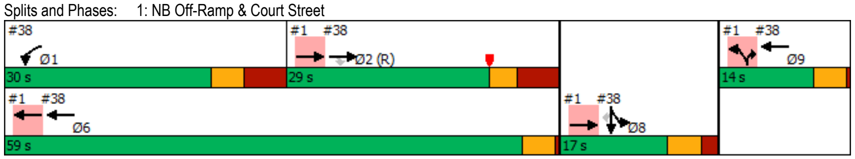


| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR | Ø1 | Ø2 | Ø8 |
|---|---|---|---|---|---|---|---|---|---|
| Minimum Initial (s) | | | | 4.0 | 4.0 | 4.0 | 4.0 | 10.0 | 4.0 |
| Minimum Split (s) | | | | 23.5 | 21.5 | 21.5 | 24.0 | 17.5 | 9.5 |
| Total Split (s) | | | | 59.0 | 14.0 | 14.0 | 30.0 | 29.0 | 17.0 |
| Total Split (%) | | | | 65.6% | 15.6% | 15.6% | 33% | 32% | 19% |
| Maximum Green (s) | | | | 55.0 | 10.0 | 10.0 | 22.0 | 21.5 | 11.5 |
| Yellow Time (s) | | | | 3.5 | 3.5 | 3.5 | 3.5 | 3.0 | 3.5 |
| All-Red Time (s) | | | | 0.5 | 0.5 | 0.5 | 4.5 | 4.5 | 2.0 |
| Lost Time Adjust (s) | | | | 0.0 | 0.0 | 0.0 | | | |
| Total Lost Time (s) | | | | 4.0 | 4.0 | 4.0 | | | |
| Lead/Lag | | | | | | | Lead | Lag | |
| Lead-Lag Optimize? | | | | | | | Yes | Yes | |
| Vehicle Extension (s) | | | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | | | | Max | Max | Max | None | C-Max | None |
| Walk Time (s) | | | | 5.0 | | | | 5.0 | 5.0 |
| Flash Dont Walk (s) | | | | 11.0 | | | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | | | 0 | | | | 0 | 0 |
| Act Effct Green (s) | 44.5 | | | 55.0 | 10.5 | 10.5 | | | |
| Actuated g/C Ratio | 0.49 | | | 0.61 | 0.12 | 0.12 | | | |
| v/c Ratio | 0.27 | | | 0.19 | 0.17 | 0.55 | | | |
| Control Delay | 9.7 | | | 6.6 | 38.6 | 44.8 | | | |
| Queue Delay | 0.6 | | | 0.0 | 0.4 | 0.0 | | | |
| Total Delay | 10.3 | | | 6.6 | 38.9 | 44.8 | | | |
| LOS | B | | | A | D | D | | | |
| Approach Delay | 10.3 | | | 6.6 | 43.9 | | | | |
| Approach LOS | B | | | A | D | | | | |

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:EBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.66
Intersection Signal Delay: 14.2 Intersection LOS: B
Intersection Capacity Utilization 42.2% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: NB Off-Ramp & Court Street



## Queues
## 1: NB Off-Ramp & Court Street

02/04/2019

| Lane Group | EBT | WBT | NBL | NBR |
|---|---|---|---|---|
| Lane Group Flow (vph) | 469 | 608 | 36 | 181 |
| v/c Ratio | 0.27 | 0.19 | 0.17 | 0.55 |
| Control Delay | 9.7 | 6.6 | 38.6 | 44.8 |
| Queue Delay | 0.6 | 0.0 | 0.4 | 0.0 |
| Total Delay | 10.3 | 6.6 | 38.9 | 44.8 |
| Queue Length 50th (ft) | 24 | 42 | 19 | 56 |
| Queue Length 95th (ft) | 62 | 54 | 48 | 93 |
| Internal Link Dist (ft) | 106 | 299 | 566 | |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 1787 | 3138 | 210 | 328 |
| Starvation Cap Reductn | 905 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 187 | 44 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.53 | 0.21 | 0.22 | 0.55 |

Intersection Summary



## Lanes, Volumes, Timings
## 2: State Street/EB Off-Ramp

02/04/2019

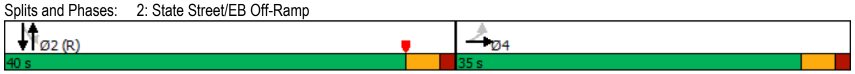
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 398 | 16 | 171 | 0 | 0 | 0 | 0 | 432 | 96 | 140 | 4 | 0 |
| Future Volume (vph) | 398 | 16 | 171 | 0 | 0 | 0 | 0 | 432 | 96 | 140 | 4 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 8 | 8 | 8 | 12 | 12 | 12 | 12 | 12 | 12 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.961 | | | | | | | 0.850 | | | |
| Flt Protected | | 0.967 | | | | | | | | | 0.954 | |
| Satd. Flow (prot) | 0 | 1742 | 0 | 0 | 0 | 0 | 0 | 1881 | 1583 | 0 | 1728 | 0 |
| Flt Permitted | | 0.967 | | | | | | | | | 0.391 | |
| Satd. Flow (perm) | 0 | 1742 | 0 | 0 | 0 | 0 | 0 | 1881 | 1583 | 0 | 708 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 33 | | | | | | | 104 | | | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 161 | | | 214 | | | 285 | | | 268 | |
| Travel Time (s) | | 3.7 | | | 4.9 | | | 6.5 | | | 6.1 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 2% | 0% | 0% | 0% | 0% | 0% | 0% | 1% | 2% | 5% | 0% | 0% |
| Adj. Flow (vph) | 433 | 17 | 186 | 0 | 0 | 0 | 0 | 470 | 104 | 152 | 4 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 636 | 0 | 0 | 0 | 0 | 0 | 470 | 104 | 0 | 156 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.20 | 1.20 | 1.20 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | | | | | 2 | 1 | 1 | 2 | |
| Detector Template | Left | Thru | | | | | | Thru | Right | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | | | | | 100 | 20 | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | | | | | 0 | 0 | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | | | | | 0 | 0 | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | | | | | 6 | 20 | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | | | | | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | | | | | NA | Perm | Perm | NA | |
| Protected Phases | | 4 | | | | | | 2 | | | 2 | |
| Permitted Phases | 4 | | | | | | | | 2 | 2 | | |
| Detector Phase | 4 | 4 | | | | | | 2 | 2 | 2 | 2 | |

## Lanes, Volumes, Timings
## 2: State Street/EB Off-Ramp
02/04/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | | | | | | 4.0 | 4.0 | 4.0 | 4.0 | |
| Minimum Split (s) | 8.5 | 8.5 | | | | | | 8.5 | 8.5 | 8.5 | 8.5 | |
| Total Split (s) | 35.0 | 35.0 | | | | | | 40.0 | 40.0 | 40.0 | 40.0 | |
| Total Split (%) | 46.7% | 46.7% | | | | | | 53.3% | 53.3% | 53.3% | 53.3% | |
| Maximum Green (s) | 30.5 | 30.5 | | | | | | 35.5 | 35.5 | 35.5 | 35.5 | |
| Yellow Time (s) | 3.0 | 3.0 | | | | | | 3.0 | 3.0 | 3.0 | 3.0 | |
| All-Red Time (s) | 1.5 | 1.5 | | | | | | 1.5 | 1.5 | 1.5 | 1.5 | |
| Lost Time Adjust (s) | | 0.0 | | | | | | 0.0 | 0.0 | | 0.0 | |
| Total Lost Time (s) | | 4.5 | | | | | | 4.5 | 4.5 | | 4.5 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | | | | | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | None | | | | | | C-Max | C-Max | C-Max | C-Max | |
| Walk Time (s) | 5.0 | 5.0 | | | | | | | | | | |
| Flash Dont Walk (s) | 15.0 | 15.0 | | | | | | | | | | |
| Pedestrian Calls (#/hr) | 0 | 0 | | | | | | | | | | |
| Act Effct Green (s) | | 29.1 | | | | | | 36.9 | 36.9 | | 36.9 | |
| Actuated g/C Ratio | | 0.39 | | | | | | 0.49 | 0.49 | | 0.49 | |
| v/c Ratio | | 0.92 | | | | | | 0.51 | 0.12 | | 0.45 | |
| Control Delay | | 40.7 | | | | | | 10.7 | 1.2 | | 18.4 | |
| Queue Delay | | 0.0 | | | | | | 0.6 | 0.0 | | 0.0 | |
| Total Delay | | 40.7 | | | | | | 11.4 | 1.2 | | 18.4 | |
| LOS | | D | | | | | | B | A | | B | |
| Approach Delay | | 40.7 | | | | | | 9.5 | | | 18.4 | |
| Approach LOS | | D | | | | | | A | | | B | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 75 | |
| Actuated Cycle Length: 75 | |
| Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Yellow, Master Intersection | |
| Natural Cycle: 50 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.92 | |
| Intersection Signal Delay: 25.1 | Intersection LOS: C |
| Intersection Capacity Utilization 75.3% | ICU Level of Service D |
| Analysis Period (min) 15 | |

Splits and Phases: 2: State Street/EB Off-Ramp






## Queues
## 2: State Street/EB Off-Ramp
02/04/2019

| Lane Group | EBT | NBT | NBR | SBT |
|---|---|---|---|---|
| Lane Group Flow (vph) | 636 | 470 | 104 | 156 |
| v/c Ratio | 0.92 | 0.51 | 0.12 | 0.45 |
| Control Delay | 40.7 | 10.7 | 1.2 | 18.4 |
| Queue Delay | 0.0 | 0.6 | 0.0 | 0.0 |
| Total Delay | 40.7 | 11.4 | 1.2 | 18.4 |
| Queue Length 50th (ft) | 252 | 107 | 0 | 47 |
| Queue Length 95th (ft) | #453 | 106 | 8 | 100 |
| Internal Link Dist (ft) | 81 | 205 | | 188 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 727 | 926 | 832 | 348 |
| Starvation Cap Reductn | 0 | 178 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.87 | 0.63 | 0.13 | 0.45 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 51 | 53 | 8 | 60 | 126 | 71 | 15 | 401 | 30 | 23 | 143 | 10 |
| Future Volume (vph) | 51 | 53 | 8 | 60 | 126 | 71 | 15 | 401 | 30 | 23 | 143 | 10 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 123 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.990 | | | 0.963 | | | 0.989 | | | 0.990 | |
| Flt Protected | | 0.978 | | | 0.989 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1780 | 0 | 0 | 1767 | 0 | 1805 | 1862 | 0 | 1805 | 1881 | 0 |
| Flt Permitted | | 0.684 | | | 0.905 | | 0.649 | | | 0.429 | | |
| Satd. Flow (perm) | 0 | 1245 | 0 | 0 | 1617 | 0 | 1233 | 1862 | 0 | 815 | 1881 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 6 | | | 31 | | | 7 | | | 6 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 187 | | | 741 | | | 332 | | | 285 | |
| Travel Time (s) | | 4.3 | | | 16.8 | | | 7.5 | | | 6.5 | |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| Heavy Vehicles (%) | 0% | 7% | 0% | 2% | 4% | 0% | 0% | 1% | 0% | 0% | 0% | 0% |
| Adj. Flow (vph) | 57 | 60 | 9 | 67 | 142 | 80 | 17 | 451 | 34 | 26 | 161 | 11 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 126 | 0 | 0 | 289 | 0 | 17 | 485 | 0 | 26 | 172 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 4 | | | 2 | | | 2 | |



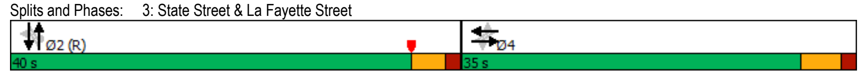


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Permitted Phases | 4 | | | 4 | | | 2 | | | 2 | | |
| Detector Phase | 4 | 4 | | 4 | 4 | | 2 | 2 | | 2 | 2 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Minimum Split (s) | 27.0 | 27.0 | | 27.0 | 27.0 | | 26.5 | 26.5 | | 26.5 | 26.5 | |
| Total Split (s) | 35.0 | 35.0 | | 35.0 | 35.0 | | 40.0 | 40.0 | | 40.0 | 40.0 | |
| Total Split (%) | 46.7% | 46.7% | | 46.7% | 46.7% | | 53.3% | 53.3% | | 53.3% | 53.3% | |
| Maximum Green (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 35.5 | 35.5 | | 35.5 | 35.5 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | 4.5 | 4.5 | | 4.5 | 4.5 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | None | None | | None | None | | C-Max | C-Max | | C-Max | C-Max | |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 15.0 | 15.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 18.1 | | | 18.1 | | 47.4 | 47.4 | | 47.4 | 47.4 | |
| Actuated g/C Ratio | | 0.24 | | | 0.24 | | 0.63 | 0.63 | | 0.63 | 0.63 | |
| v/c Ratio | | 0.41 | | | 0.70 | | 0.02 | 0.41 | | 0.05 | 0.14 | |
| Control Delay | | 25.3 | | | 31.6 | | 5.7 | 6.8 | | 13.3 | 13.2 | |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.3 | | 0.0 | 0.0 | |
| Total Delay | | 25.3 | | | 31.6 | | 5.7 | 7.2 | | 13.3 | 13.2 | |
| LOS | | C | | | C | | A | A | | B | B | |
| Approach Delay | | 25.3 | | | 31.6 | | | 7.1 | | | 13.2 | |
| Approach LOS | | C | | | C | | | A | | | B | |

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 5 (7%), Referenced to phase 2:NBSB and 6:, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 16.6 Intersection LOS: B
Intersection Capacity Utilization 46.3% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 3: State Street & La Fayette Street



Queues
3: State Street & La Fayette Street 02/04/2019

| Lane Group | EBT | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 126 | 289 | 17 | 485 | 26 | 172 |
| v/c Ratio | 0.41 | 0.70 | 0.02 | 0.41 | 0.05 | 0.14 |
| Control Delay | 25.3 | 31.6 | 5.7 | 6.8 | 13.3 | 13.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 |
| Total Delay | 25.3 | 31.6 | 5.7 | 7.2 | 13.3 | 13.2 |
| Queue Length 50th (ft) | 47 | 110 | 3 | 84 | 8 | 62 |
| Queue Length 95th (ft) | 80 | 160 | m7 | 122 | m13 | m98 |
| Internal Link Dist (ft) | 107 | 661 | | 252 | | 205 |
| Turn Bay Length (ft) | | | 123 | | | |
| Base Capacity (vph) | 501 | 665 | 779 | 1180 | 515 | 1192 |
| Starvation Cap Reductn | 0 | 0 | 0 | 247 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 6 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.25 | 0.43 | 0.02 | 0.52 | 0.05 | 0.14 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lanes, Volumes, Timings
4: State Street & Columbia Street 02/04/2019

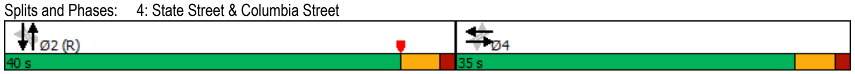
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 52 | 99 | 37 | 29 | 108 | 83 | 44 | 316 | 40 | 15 | 184 | 9 |
| Future Volume (vph) | 52 | 99 | 37 | 29 | 108 | 83 | 44 | 316 | 40 | 15 | 184 | 9 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 600 | | 0 | 114 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.973 | | | 0.949 | | | 0.983 | | | 0.993 | |
| Flt Protected | | 0.986 | | | 0.993 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1588 | 0 | 0 | 1558 | 0 | 1770 | 1831 | 0 | 1805 | 1869 | 0 |
| Flt Permitted | | 0.755 | | | 0.933 | | 0.615 | | | 0.478 | | |
| Satd. Flow (perm) | 0 | 1216 | 0 | 0 | 1464 | 0 | 1146 | 1831 | 0 | 908 | 1869 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 20 | | | 48 | | | 11 | | | 5 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 213 | | | 745 | | | 877 | | | 332 | |
| Travel Time (s) | | 4.8 | | | 16.9 | | | 19.9 | | | 7.5 | |
| Peak Hour Factor | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 |
| Heavy Vehicles (%) | 4% | 3% | 3% | 0% | 7% | 0% | 2% | 2% | 2% | 0% | 1% | 0% |
| Parking (#/hr) | | 0 | | | 0 | | | | | | | |
| Adj. Flow (vph) | 62 | 118 | 44 | 35 | 129 | 99 | 52 | 376 | 48 | 18 | 219 | 11 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 224 | 0 | 0 | 263 | 0 | 52 | 424 | 0 | 18 | 230 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.14 | 1.00 | 1.00 | 1.14 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |

## Lanes, Volumes, Timings
4: State Street & Columbia Street 02/04/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Protected Phases | | 4 | | | 4 | | | 2 | | | 2 | |
| Permitted Phases | 4 | | | 4 | | | 2 | | | 2 | | |
| Detector Phase | 4 | 4 | | 4 | 4 | | 2 | 2 | | 2 | 2 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Minimum Split (s) | 9.0 | 9.0 | | 9.0 | 9.0 | | 9.0 | 9.0 | | 9.0 | 9.0 | |
| Total Split (s) | 35.0 | 35.0 | | 35.0 | 35.0 | | 40.0 | 40.0 | | 40.0 | 40.0 | |
| Total Split (%) | 46.7% | 46.7% | | 46.7% | 46.7% | | 53.3% | 53.3% | | 53.3% | 53.3% | |
| Maximum Green (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 35.0 | 35.0 | | 35.0 | 35.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | None | None | | None | None | | C-Max | C-Max | | C-Max | C-Max | |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 15.0 | 15.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 17.4 | | | 17.4 | | 47.6 | 47.6 | | 47.6 | 47.6 | |
| Actuated g/C Ratio | | 0.23 | | | 0.23 | | 0.63 | 0.63 | | 0.63 | 0.63 | |
| v/c Ratio | | 0.75 | | | 0.70 | | 0.07 | 0.36 | | 0.03 | 0.19 | |
| Control Delay | | 39.4 | | | 30.6 | | 7.5 | 8.7 | | 4.5 | 4.4 | |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | | 39.4 | | | 30.6 | | 7.5 | 8.7 | | 4.5 | 4.4 | |
| LOS | | D | | | C | | A | A | | A | A | |
| Approach Delay | | 39.4 | | | 30.6 | | | 8.6 | | | 4.4 | |
| Approach LOS | | D | | | C | | | A | | | A | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 75 | |
| Actuated Cycle Length: 75 | |
| Offset: 5 (7%), Referenced to phase 2:NBSB and 6:, Start of Yellow | |
| Natural Cycle: 40 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.75 | |
| Intersection Signal Delay: 18.2 | Intersection LOS: B |
| Intersection Capacity Utilization 53.8% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 4: State Street & Columbia Street






## Queues
4: State Street & Columbia Street 02/04/2019

| Lane Group | EBT | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 224 | 263 | 52 | 424 | 18 | 230 |
| v/c Ratio | 0.75 | 0.70 | 0.07 | 0.36 | 0.03 | 0.19 |
| Control Delay | 39.4 | 30.6 | 7.5 | 8.7 | 4.5 | 4.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 39.4 | 30.6 | 7.5 | 8.7 | 4.5 | 4.4 |
| Queue Length 50th (ft) | 88 | 91 | 8 | 80 | 3 | 34 |
| Queue Length 95th (ft) | 128 | 130 | 26 | 159 | m8 | 54 |
| Internal Link Dist (ft) | 133 | 665 | | 797 | | 252 |
| Turn Bay Length (ft) | | | 600 | | 114 | |
| Base Capacity (vph) | 498 | 614 | 727 | 1166 | 576 | 1188 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.45 | 0.43 | 0.07 | 0.36 | 0.03 | 0.19 |

| Intersection Summary |
|---|
| m Volume for 95th percentile queue is metered by upstream signal. |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 136 | 313 | 136 | 45 | 396 | 83 | 74 | 143 | 19 | 51 | 161 | 65 |
| Future Volume (vph) | 136 | 313 | 136 | 45 | 396 | 83 | 74 | 143 | 19 | 51 | 161 | 65 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 153 | | 0 | 350 | | 0 | 165 | | 0 | 167 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.955 | | | 0.974 | | | 0.982 | | | 0.957 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 3360 | 0 | 1805 | 3487 | 0 | 1805 | 1839 | 0 | 1770 | 1805 | 0 |
| Flt Permitted | 0.356 | | | 0.469 | | | 0.508 | | | 0.608 | | |
| Satd. Flow (perm) | 663 | 3360 | 0 | 891 | 3487 | 0 | 965 | 1839 | 0 | 1133 | 1805 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 90 | | | 28 | | | 8 | | | 24 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 379 | | | 720 | | | 284 | | | 877 | |
| Travel Time (s) | | 8.6 | | | 16.4 | | | 6.5 | | | 19.9 | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 2% | 2% | 4% | 0% | 1% | 0% | 0% | 1% | 5% | 2% | 1% | 0% |
| Adj. Flow (vph) | 151 | 348 | 151 | 50 | 440 | 92 | 82 | 159 | 21 | 57 | 179 | 72 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 151 | 499 | 0 | 50 | 532 | 0 | 82 | 180 | 0 | 57 | 251 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | pm+pt | NA | | pm+pt | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |



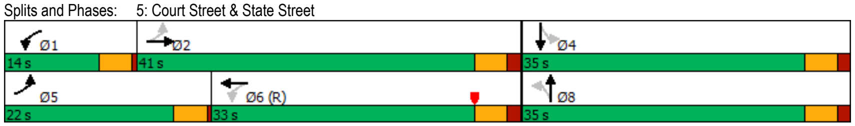


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Permitted Phases | 2 | | | 6 | | | 8 | | | 4 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 8 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 6.0 | | 4.0 | 10.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 8.0 | 23.0 | | 8.0 | 23.0 | | 30.0 | 30.0 | | 30.0 | 30.0 | |
| Total Split (s) | 22.0 | 41.0 | | 14.0 | 33.0 | | 35.0 | 35.0 | | 35.0 | 35.0 | |
| Total Split (%) | 24.4% | 45.6% | | 15.6% | 36.7% | | 38.9% | 38.9% | | 38.9% | 38.9% | |
| Maximum Green (s) | 18.0 | 36.0 | | 10.0 | 28.0 | | 30.0 | 30.0 | | 30.0 | 30.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 0.5 | 1.5 | | 0.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.0 | 5.0 | | 4.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | None | None | | None | C-Max | | Max | Max | | Max | Max | |
| Walk Time (s) | | 4.0 | | | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Flash Dont Walk (s) | | 14.0 | | | 14.0 | | 21.0 | 21.0 | | 21.0 | 21.0 | |
| Pedestrian Calls (#/hr) | | 0 | | | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | 50.5 | 43.3 | | 44.5 | 36.8 | | 30.0 | 30.0 | | 30.0 | 30.0 | |
| Actuated g/C Ratio | 0.56 | 0.48 | | 0.49 | 0.41 | | 0.33 | 0.33 | | 0.33 | 0.33 | |
| v/c Ratio | 0.31 | 0.30 | | 0.10 | 0.37 | | 0.26 | 0.29 | | 0.15 | 0.41 | |
| Control Delay | 12.0 | 13.4 | | 9.5 | 18.7 | | 24.6 | 22.7 | | 22.5 | 23.2 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 12.0 | 13.4 | | 9.5 | 18.7 | | 24.6 | 22.7 | | 22.5 | 23.2 | |
| LOS | B | B | | A | B | | C | C | | C | C | |
| Approach Delay | | 13.1 | | | 17.9 | | | 23.3 | | | 23.1 | |
| Approach LOS | | B | | | B | | | C | | | C | |

**Intersection Summary**

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 3 (3%), Referenced to phase 6:WBTL, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.41
Intersection Signal Delay: 17.9 Intersection LOS: B
Intersection Capacity Utilization 54.4% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 5: Court Street & State Street



## Queues
### 5: Court Street & State Street
02/04/2019

| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 151 | 499 | 50 | 532 | 82 | 180 | 57 | 251 |
| v/c Ratio | 0.31 | 0.30 | 0.10 | 0.37 | 0.26 | 0.29 | 0.15 | 0.41 |
| Control Delay | 12.0 | 13.4 | 9.5 | 18.7 | 24.6 | 22.7 | 22.5 | 23.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 12.0 | 13.4 | 9.5 | 18.7 | 24.6 | 22.7 | 22.5 | 23.2 |
| Queue Length 50th (ft) | 59 | 90 | 12 | 101 | 34 | 71 | 23 | 98 |
| Queue Length 95th (ft) | 82 | 100 | 27 | 151 | 71 | 124 | 51 | 164 |
| Internal Link Dist (ft) | | 299 | | 640 | | 204 | | 797 |
| Turn Bay Length (ft) | 153 | | 350 | | 165 | | 167 | |
| Base Capacity (vph) | 597 | 1662 | 575 | 1443 | 321 | 618 | 377 | 617 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.25 | 0.30 | 0.09 | 0.37 | 0.26 | 0.29 | 0.15 | 0.41 |

Intersection Summary



## Lanes, Volumes, Timings
### 6: Cornelia Street/Auditorium Street & 5S
02/04/2019

| Lane Group | EBT | EBR | WBT | WBR | NBL | NBT | NBR | SBT | SBR2 | NER | NER2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 813 | 13 | 1076 | 2 | 73 | 15 | 17 | 15 | 179 | 236 | 6 |
| Future Volume (vph) | 813 | 13 | 1076 | 2 | 73 | 15 | 17 | 15 | 179 | 236 | 6 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | | 0 | | 0 | 0 | | 0 | | | 0 | |
| Storage Lanes | | 0 | | 0 | 0 | | 0 | | | 1 | |
| Taper Length (ft) | | | | | 25 | | | | | | |
| Lane Util. Factor | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.998 | | | | | 0.978 | | 0.876 | | 0.865 | |
| Flt Protected | | | | | | 0.967 | | | | | |
| Satd. Flow (prot) | 3497 | 0 | 3505 | 0 | 0 | 1797 | 0 | 1664 | 0 | 1595 | 0 |
| Flt Permitted | | | | | | 0.434 | | | | | |
| Satd. Flow (perm) | 3497 | 0 | 3505 | 0 | 0 | 806 | 0 | 1664 | 0 | 1595 | 0 |
| Right Turn on Red | | | | Yes | | | No | | Yes | | No |
| Satd. Flow (RTOR) | | | | | | | | 116 | | | |
| Link Speed (mph) | 30 | | 30 | | | 30 | | 30 | | | |
| Link Distance (ft) | 331 | | 678 | | | 446 | | 334 | | | |
| Travel Time (s) | 7.5 | | 15.4 | | | 10.1 | | 7.6 | | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 3% | 5% | 3% | 0% | 0% | 0% | 0% | 0% | 0% | 3% | 5% |
| Adj. Flow (vph) | 903 | 14 | 1196 | 2 | 81 | 17 | 19 | 17 | 199 | 262 | 7 |
| Shared Lane Traffic (%) | | | | | | | | | | | |
| Lane Group Flow (vph) | 917 | 0 | 1198 | 0 | 0 | 117 | 0 | 216 | 0 | 269 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left | Right | Left | Right | Right | Right |
| Median Width(ft) | 0 | | 0 | | | 0 | | 0 | | | |
| Link Offset(ft) | 0 | | 0 | | | 0 | | 0 | | | |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 | | 16 | | | |
| Two way Left Turn Lane | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | | 9 | | 9 | 15 | | 9 | | 9 | 9 | 9 |
| Number of Detectors | 2 | | 2 | | 1 | 2 | | 2 | | 1 | |
| Detector Template | Thru | | Thru | | Left | Thru | | Thru | | Right | |
| Leading Detector (ft) | 100 | | 100 | | 20 | 100 | | 100 | | 20 | |
| Trailing Detector (ft) | 0 | | 0 | | 0 | 0 | | 0 | | 0 | |
| Detector 1 Position(ft) | 0 | | 0 | | 0 | 0 | | 0 | | 0 | |
| Detector 1 Size(ft) | 6 | | 6 | | 20 | 6 | | 6 | | 20 | |
| Detector 1 Type | Cl+Ex | | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | | 0.0 | | 0.0 | 0.0 | | 0.0 | | 0.0 | |
| Detector 1 Queue (s) | 0.0 | | 0.0 | | 0.0 | 0.0 | | 0.0 | | 0.0 | |
| Detector 1 Delay (s) | 0.0 | | 0.0 | | 0.0 | 0.0 | | 0.0 | | 0.0 | |
| Detector 2 Position(ft) | 94 | | 94 | | | 94 | | 94 | | | |
| Detector 2 Size(ft) | 6 | | 6 | | | 6 | | 6 | | | |
| Detector 2 Type | Cl+Ex | | Cl+Ex | | | Cl+Ex | | Cl+Ex | | | |
| Detector 2 Channel | | | | | | | | | | | |
| Detector 2 Extend (s) | 0.0 | | 0.0 | | | 0.0 | | 0.0 | | | |
| Turn Type | NA | | NA | | Perm | NA | | NA | | Prot | |
| Protected Phases | 2 | | 6 | | | 4 | | 8 | | 1 | |

## Lanes, Volumes, Timings
### 6: Cornelia Street/Auditorium Street & 5S

02/04/2019

| Lane Group | EBT | EBR | WBT | WBR | NBL | NBT | NBR | SBT | SBR2 | NER | NER2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Permitted Phases | | | | | 4 | | | | | | |
| Detector Phase | 2 | | 6 | | 4 | 4 | | 8 | | 1 | |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 12.0 | | 4.0 | | 6.0 | 6.0 | | 6.0 | | 6.0 | |
| Minimum Split (s) | 17.0 | | 21.0 | | 11.0 | 11.0 | | 11.0 | | 11.0 | |
| Total Split (s) | 30.0 | | 65.0 | | 20.0 | 20.0 | | 20.0 | | 35.0 | |
| Total Split (%) | 35.3% | | 76.5% | | 23.5% | 23.5% | | 23.5% | | 41.2% | |
| Maximum Green (s) | 25.0 | | 60.0 | | 15.0 | 15.0 | | 15.0 | | 30.0 | |
| Yellow Time (s) | 3.5 | | 3.5 | | 3.5 | 3.5 | | 3.5 | | 3.5 | |
| All-Red Time (s) | 1.5 | | 1.5 | | 1.5 | 1.5 | | 1.5 | | 1.5 | |
| Lost Time Adjust (s) | 0.0 | | 0.0 | | | 0.0 | | 0.0 | | 0.0 | |
| Total Lost Time (s) | 5.0 | | 5.0 | | | 5.0 | | 5.0 | | 5.0 | |
| Lead/Lag | Lag | | | | | | | | | Lead | |
| Lead-Lag Optimize? | | | | | | | | | | Yes | |
| Vehicle Extension (s) | 2.0 | | 3.0 | | 2.0 | 2.0 | | 2.0 | | 2.0 | |
| Recall Mode | C-Min | | C-Min | | None | None | | None | | None | |
| Walk Time (s) | | | 5.0 | | | | | | | | |
| Flash Dont Walk (s) | | | 11.0 | | | | | | | | |
| Pedestrian Calls (#/hr) | | | 0 | | | | | | | | |
| Act Effct Green (s) | 37.6 | | 61.4 | | | 13.6 | | 13.6 | | 18.9 | |
| Actuated g/C Ratio | 0.44 | | 0.72 | | | 0.16 | | 0.16 | | 0.22 | |
| v/c Ratio | 0.59 | | 0.47 | | | 0.91 | | 0.60 | | 0.76 | |
| Control Delay | 21.6 | | 10.7 | | | 96.2 | | 22.7 | | 44.4 | |
| Queue Delay | 0.0 | | 0.0 | | | 0.0 | | 0.0 | | 0.0 | |
| Total Delay | 21.6 | | 10.7 | | | 96.2 | | 22.7 | | 44.4 | |
| LOS | C | | B | | | F | | C | | D | |
| Approach Delay | 21.6 | | 10.7 | | | 96.2 | | 22.7 | | | |
| Approach LOS | C | | B | | | F | | C | | | |

Intersection Summary

Area Type: Other

Cycle Length: 85

Actuated Cycle Length: 85

Offset: 16 (19%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 45

Control Type: Actuated-Coordinated

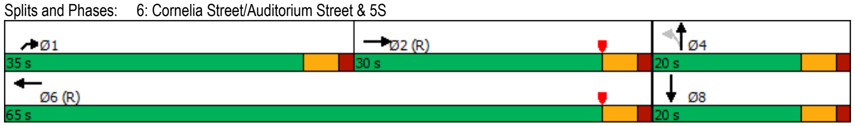
Maximum v/c Ratio: 0.91

Intersection Signal Delay: 22.3 Intersection LOS: C

Intersection Capacity Utilization 72.3% ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 6: Cornelia Street/Auditorium Street & 5S






## Queues
### 6: Cornelia Street/Auditorium Street & 5S

02/04/2019

| Lane Group | EBT | WBT | NBT | SBT | NER |
|---|---|---|---|---|---|
| Lane Group Flow (vph) | 917 | 1198 | 117 | 216 | 269 |
| v/c Ratio | 0.59 | 0.47 | 0.91 | 0.60 | 0.76 |
| Control Delay | 21.6 | 10.7 | 96.2 | 22.7 | 44.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 21.6 | 10.7 | 96.2 | 22.7 | 44.4 |
| Queue Length 50th (ft) | 194 | 303 | 61 | 47 | 135 |
| Queue Length 95th (ft) | 300 | 336 | #156 | 116 | 197 |
| Internal Link Dist (ft) | 251 | 598 | 366 | 254 | |
| Turn Bay Length (ft) | | | | | |
| Base Capacity (vph) | 1545 | 2532 | 142 | 389 | 562 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.59 | 0.47 | 0.82 | 0.56 | 0.48 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 7 | 98 | 11 | 16 | 227 | 25 | 25 | 72 | 20 | 5 | 16 | 14 |
| Future Volume (vph) | 7 | 98 | 11 | 16 | 227 | 25 | 25 | 72 | 20 | 5 | 16 | 14 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.987 | | | 0.987 | | | 0.977 | | | 0.945 | |
| Flt Protected | | 0.997 | | | 0.997 | | | 0.989 | | | 0.993 | |
| Satd. Flow (prot) | 0 | 1850 | 0 | 0 | 1825 | 0 | 0 | 1790 | 0 | 0 | 1605 | 0 |
| Flt Permitted | | 0.982 | | | 0.983 | | | 0.946 | | | 0.971 | |
| Satd. Flow (perm) | 0 | 1822 | 0 | 0 | 1800 | 0 | 0 | 1712 | 0 | 0 | 1569 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 12 | | | 13 | | | 21 | | | 15 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 741 | | | 632 | | | 331 | | | 446 | |
| Travel Time (s) | | 16.8 | | | 14.4 | | | 7.5 | | | 10.1 | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Heavy Vehicles (%) | 3% | 0% | 9% | 6% | 2% | 4% | 4% | 0% | 10% | 0% | 0% | 0% |
| Parking (#/hr) | | | | | | | | | | | 0 | |
| Adj. Flow (vph) | 7 | 104 | 12 | 17 | 241 | 27 | 27 | 77 | 21 | 5 | 17 | 15 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 123 | 0 | 0 | 285 | 0 | 0 | 125 | 0 | 0 | 37 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.14 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 4 | | | 2 | | | 2 | |
| Permitted Phases | 4 | | | 4 | | | 2 | | | 2 | | |
| Minimum Split (s) | 21.0 | 21.0 | | 21.0 | 21.0 | | 21.0 | 21.0 | | 21.0 | 21.0 | |
| Total Split (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 25.0 | 25.0 | | 25.0 | 25.0 | |
| Total Split (%) | 54.5% | 54.5% | | 54.5% | 54.5% | | 45.5% | 45.5% | | 45.5% | 45.5% | |
| Maximum Green (s) | 25.0 | 25.0 | | 25.0 | 25.0 | | 20.0 | 20.0 | | 20.0 | 20.0 | |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 25.0 | | | 25.0 | | | 20.0 | | | 20.0 | |
| Actuated g/C Ratio | | 0.45 | | | 0.45 | | | 0.36 | | | 0.36 | |
| v/c Ratio | | 0.15 | | | 0.35 | | | 0.20 | | | 0.06 | |
| Control Delay | | 8.6 | | | 10.7 | | | 11.2 | | | 8.7 | |



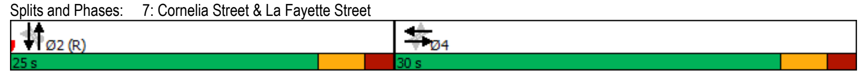


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 8.6 | | | 10.7 | | | 11.2 | | | 8.7 | |
| LOS | | A | | | B | | | B | | | A | |
| Approach Delay | | 8.6 | | | 10.7 | | | 11.2 | | | 8.7 | |
| Approach LOS | | A | | | B | | | B | | | A | |

Intersection Summary

Area Type: Other
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 22 (40%), Referenced to phase 2:NBSB and 6:, Start of Green
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.35
Intersection Signal Delay: 10.2 Intersection LOS: B
Intersection Capacity Utilization 36.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 7: Cornelia Street & La Fayette Street



| Lane Group | EBT | WBT | NBT | SBT |
|---|---|---|---|---|
| Lane Group Flow (vph) | 123 | 285 | 125 | 37 |
| v/c Ratio | 0.15 | 0.35 | 0.20 | 0.06 |
| Control Delay | 8.6 | 10.7 | 11.2 | 8.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 8.6 | 10.7 | 11.2 | 8.7 |
| Queue Length 50th (ft) | 20 | 53 | 22 | 4 |
| Queue Length 95th (ft) | 44 | 99 | 52 | 19 |
| Internal Link Dist (ft) | 661 | 552 | 251 | 366 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 834 | 825 | 635 | 580 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.15 | 0.35 | 0.20 | 0.06 |

Intersection Summary





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 25 | 128 | 18 | 21 | 173 | 19 | 33 | 69 | 17 | 2 | 31 | 11 |
| Future Volume (vph) | 25 | 128 | 18 | 21 | 173 | 19 | 33 | 69 | 17 | 2 | 31 | 11 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.986 | | | 0.988 | | | 0.981 | | | 0.967 | |
| Flt Protected | | 0.993 | | | 0.995 | | | 0.986 | | | 0.997 | |
| Satd. Flow (prot) | 0 | 1786 | 0 | 0 | 1774 | 0 | 0 | 1812 | 0 | 0 | 1745 | 0 |
| Flt Permitted | | 0.931 | | | 0.959 | | | 0.923 | | | 0.991 | |
| Satd. Flow (perm) | 0 | 1674 | 0 | 0 | 1710 | 0 | 0 | 1696 | 0 | 0 | 1734 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 12 | | | 10 | | | 17 | | | 14 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 745 | | | 571 | | | 871 | | | 331 | |
| Travel Time (s) | | 16.9 | | | 13.0 | | | 19.8 | | | 7.5 | |
| Peak Hour Factor | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 |
| Heavy Vehicles (%) | 8% | 4% | 0% | 4% | 6% | 0% | 3% | 1% | 0% | 50% | 0% | 10% |
| Adj. Flow (vph) | 33 | 168 | 24 | 28 | 228 | 25 | 43 | 91 | 22 | 3 | 41 | 14 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 225 | 0 | 0 | 281 | 0 | 0 | 156 | 0 | 0 | 58 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 4 | | | 2 | | | 2 | |
| Permitted Phases | 4 | | | 4 | | | 2 | | | 2 | | |
| Minimum Split (s) | 20.5 | 20.5 | | 20.5 | 20.5 | | 20.5 | 20.5 | | 20.5 | 20.5 | |
| Total Split (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 30.0 | 30.0 | | 30.0 | 30.0 | |
| Total Split (%) | 50.0% | 50.0% | | 50.0% | 50.0% | | 50.0% | 50.0% | | 50.0% | 50.0% | |
| Maximum Green (s) | 25.5 | 25.5 | | 25.5 | 25.5 | | 25.5 | 25.5 | | 25.5 | 25.5 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 4.5 | | | 4.5 | | | 4.5 | | | 4.5 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 25.5 | | | 25.5 | | | 25.5 | | | 25.5 | |
| Actuated g/C Ratio | | 0.42 | | | 0.42 | | | 0.42 | | | 0.42 | |
| v/c Ratio | | 0.31 | | | 0.38 | | | 0.21 | | | 0.08 | |
| Control Delay | | 12.3 | | | 13.3 | | | 10.7 | | | 8.8 | |
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |

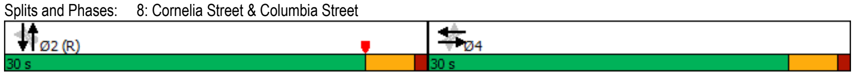
## Lanes, Volumes, Timings
### 8: Cornelia Street & Columbia Street

02/04/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Delay | | 12.3 | | | 13.3 | | | 10.7 | | | 8.8 | |
| LOS | | B | | | B | | | B | | | A | |
| Approach Delay | | 12.3 | | | 13.3 | | | 10.7 | | | 8.8 | |
| Approach LOS | | B | | | B | | | B | | | A | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 15.5 (26%), Referenced to phase 2:NBSB and 6:, Start of Yellow | |
| Natural Cycle: 45 | |
| Control Type: Pretimed | |
| Maximum v/c Ratio: 0.38 | |
| Intersection Signal Delay: 12.1 | Intersection LOS: B |
| Intersection Capacity Utilization 34.5% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 8: Cornelia Street & Columbia Street






## Queues
### 8: Cornelia Street & Columbia Street

02/04/2019

| Lane Group | EBT | WBT | NBT | SBT |
|---|---|---|---|---|
| Lane Group Flow (vph) | 225 | 281 | 156 | 58 |
| v/c Ratio | 0.31 | 0.38 | 0.21 | 0.08 |
| Control Delay | 12.3 | 13.3 | 10.7 | 8.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 12.3 | 13.3 | 10.7 | 8.8 |
| Queue Length 50th (ft) | 48 | 64 | 30 | 9 |
| Queue Length 95th (ft) | 74 | 92 | 51 | 22 |
| Internal Link Dist (ft) | 665 | 491 | 791 | 251 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 718 | 732 | 730 | 745 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.31 | 0.38 | 0.21 | 0.08 |

Intersection Summary

Lanes, Volumes, Timings
9: Cornelia Street & Court Street 02/04/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 23 | 337 | 19 | 12 | 440 | 25 | 38 | 24 | 13 | 30 | 30 | 56 |
| Future Volume (vph) | 23 | 337 | 19 | 12 | 440 | 25 | 38 | 24 | 13 | 30 | 30 | 56 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.993 | | | 0.992 | | | 0.948 | | | 0.902 | |
| Flt Protected | | 0.997 | | | 0.999 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 3523 | 0 | 0 | 3545 | 0 | 1805 | 1801 | 0 | 1752 | 1714 | 0 |
| Flt Permitted | | 0.906 | | | 0.942 | | 0.692 | | | 0.729 | | |
| Satd. Flow (perm) | 0 | 3202 | 0 | 0 | 3343 | 0 | 1315 | 1801 | 0 | 1345 | 1714 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 9 | | | 9 | | | 15 | | | 65 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 720 | | | 199 | | | 282 | | | 871 | |
| Travel Time (s) | | 16.4 | | | 4.5 | | | 6.4 | | | 19.8 | |
| Peak Hour Factor | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 |
| Heavy Vehicles (%) | 9% | 1% | 0% | 0% | 1% | 0% | 0% | 0% | 0% | 3% | 0% | 0% |
| Adj. Flow (vph) | 27 | 392 | 22 | 14 | 512 | 29 | 44 | 28 | 15 | 35 | 35 | 65 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 441 | 0 | 0 | 555 | 0 | 44 | 43 | 0 | 35 | 100 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 4 | | | 2 | | | 2 | |
| Permitted Phases | 4 | | | 4 | | | 2 | | | 2 | | |
| Minimum Split (s) | 20.0 | 20.0 | | 20.0 | 20.0 | | 20.5 | 20.5 | | 20.5 | 20.5 | |
| Total Split (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 40.0 | 40.0 | | 40.0 | 40.0 | |
| Total Split (%) | 42.9% | 42.9% | | 42.9% | 42.9% | | 57.1% | 57.1% | | 57.1% | 57.1% | |
| Maximum Green (s) | 26.0 | 26.0 | | 26.0 | 26.0 | | 35.5 | 35.5 | | 35.5 | 35.5 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 0.5 | 0.5 | | 0.5 | 0.5 | | 1.0 | 1.0 | | 1.0 | 1.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | | 4.0 | | | 4.0 | | 4.5 | 4.5 | | 4.5 | 4.5 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 26.0 | | | 26.0 | | 35.5 | 35.5 | | 35.5 | 35.5 | |
| Actuated g/C Ratio | | 0.37 | | | 0.37 | | 0.51 | 0.51 | | 0.51 | 0.51 | |
| v/c Ratio | | 0.37 | | | 0.45 | | 0.07 | 0.05 | | 0.05 | 0.11 | |
| Control Delay | | 16.8 | | | 17.7 | | 9.2 | 6.6 | | 9.1 | 4.5 | |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |

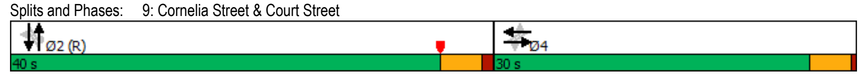


Lanes, Volumes, Timings
9: Cornelia Street & Court Street 02/04/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Delay | | 16.8 | | | 17.7 | | 9.2 | 6.6 | | 9.1 | 4.5 | |
| LOS | | B | | | B | | A | A | | A | A | |
| Approach Delay | | 16.8 | | | 17.7 | | | 7.9 | | | 5.7 | |
| Approach LOS | | B | | | B | | | A | | | A | |

Intersection Summary
Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 25.5 (36%), Referenced to phase 2:NBSB and 6:, Start of Yellow
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.45
Intersection Signal Delay: 15.3 Intersection LOS: B
Intersection Capacity Utilization 43.1% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 9: Cornelia Street & Court Street



## Queues
## 9: Cornelia Street & Court Street

02/04/2019

| Lane Group | EBT | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 441 | 555 | 44 | 43 | 35 | 100 |
| v/c Ratio | 0.37 | 0.45 | 0.07 | 0.05 | 0.05 | 0.11 |
| Control Delay | 16.8 | 17.7 | 9.2 | 6.6 | 9.1 | 4.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 16.8 | 17.7 | 9.2 | 6.6 | 9.1 | 4.5 |
| Queue Length 50th (ft) | 69 | 90 | 9 | 6 | 7 | 7 |
| Queue Length 95th (ft) | 99 | 124 | 23 | 18 | 19 | 26 |
| Internal Link Dist (ft) | 640 | 119 | | 202 | | 791 |
| Turn Bay Length (ft) | | | | | | |
| Base Capacity (vph) | 1194 | 1247 | 666 | 920 | 682 | 901 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.37 | 0.45 | 0.07 | 0.05 | 0.05 | 0.11 |

Intersection Summary



## Lanes, Volumes, Timings
## 10: Liberty/5S

02/04/2019

| Lane Group | EBL | EBR | EBR2 | WBL | WBT | NBL | NBT | NBR2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 30 | 1002 | 18 | 12 | 898 | 117 | 15 | 26 | 1 | 12 | 36 |
| Future Volume (vph) | 30 | 1002 | 18 | 12 | 898 | 117 | 15 | 26 | 1 | 12 | 36 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 0.88 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.850 | | | | | 0.978 | | | 0.900 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.964 | | | 0.999 | |
| Satd. Flow (prot) | 1805 | 2785 | 0 | 1752 | 3610 | 0 | 1756 | 0 | 0 | 1629 | 0 |
| Flt Permitted | 0.231 | | | 0.950 | | | 0.747 | | | 0.995 | |
| Satd. Flow (perm) | 439 | 2785 | 0 | 1752 | 3610 | 0 | 1361 | 0 | 0 | 1622 | 0 |
| Right Turn on Red | | | Yes | | | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 103 | | | | | 90 | | | 40 | |
| Link Speed (mph) | | | | | 30 | | 30 | | | 30 | |
| Link Distance (ft) | | | | | 328 | | 433 | | | 303 | |
| Travel Time (s) | | | | | 7.5 | | 9.8 | | | 6.9 | |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| Heavy Vehicles (%) | 0% | 2% | 6% | 3% | 0% | 1% | 13% | 0% | 0% | 8% | 4% |
| Adj. Flow (vph) | 34 | 1126 | 20 | 13 | 1009 | 131 | 17 | 29 | 1 | 13 | 40 |
| Shared Lane Traffic (%) | | | | | | | | | | | |
| Lane Group Flow (vph) | 34 | 1146 | 0 | 13 | 1009 | 0 | 177 | 0 | 0 | 54 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Right | Left | Left | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | | | | 12 | | 0 | | | 0 | |
| Link Offset(ft) | | | | | 0 | | 0 | | | 0 | |
| Crosswalk Width(ft) | | | | | 16 | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 9 | 15 | | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 1 | | 1 | 2 | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Right | | Left | Thru | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 20 | | 20 | 100 | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 20 | | 20 | 6 | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | | | | 94 | | 94 | | | 94 | |
| Detector 2 Size(ft) | | | | | 6 | | 6 | | | 6 | |
| Detector 2 Type | | | | | Cl+Ex | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | |
| Detector 2 Extend (s) | | | | | 0.0 | | 0.0 | | | 0.0 | |
| Turn Type | pm+pt | Perm | | pm+pt | NA | Perm | NA | | Perm | NA | |
| Protected Phases | 5 | | | 1 | 6 | | 8 | | | 4 | |
| Permitted Phases | 2 | 2 | | 6 | | 8 | | | 4 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | 8 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | |

## Lanes, Volumes, Timings
### 10: Liberty/5S
02/04/2019

| Lane Group | EBL | EBR | EBR2 | WBL | WBT | NBL | NBT | NBR2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Initial (s) | 6.0 | 15.0 | | 4.0 | 15.0 | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 11.0 | 21.0 | | 9.0 | 21.0 | 12.0 | 12.0 | | 12.0 | 12.0 | |
| Total Split (s) | 15.0 | 48.0 | | 15.0 | 48.0 | 22.0 | 22.0 | | 22.0 | 22.0 | |
| Total Split (%) | 17.6% | 56.5% | | 17.6% | 56.5% | 25.9% | 25.9% | | 25.9% | 25.9% | |
| Maximum Green (s) | 10.0 | 43.0 | | 10.0 | 43.0 | 16.0 | 16.0 | | 16.0 | 16.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 6.0 | | | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | |
| Lead-Lag Optimize? | | Yes | | Yes | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | None | C-Max | | None | C-Max | None | None | | None | None | |
| Walk Time (s) | | 5.0 | | | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | | 0 | | | 0 | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | 62.1 | 60.7 | | 59.6 | 56.1 | | 11.1 | | | 11.1 | |
| Actuated g/C Ratio | 0.73 | 0.71 | | 0.70 | 0.66 | | 0.13 | | | 0.13 | |
| v/c Ratio | 0.08 | 0.57 | | 0.01 | 0.42 | | 0.69 | | | 0.22 | |
| Control Delay | 1.4 | 5.1 | | 7.0 | 9.3 | | 32.0 | | | 15.9 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.1 | | 0.0 | | | 0.0 | |
| Total Delay | 1.4 | 5.1 | | 7.0 | 9.5 | | 32.0 | | | 15.9 | |
| LOS | A | A | | A | A | | C | | | B | |
| Approach Delay | | | | | 9.4 | | 32.0 | | | 15.9 | |
| Approach LOS | | | | | A | | C | | | B | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 85 | |
| Actuated Cycle Length: 85 | |
| Offset: 43 (51%), Referenced to phase 2:EBL and 6:WBTL, Start of Yellow | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.69 | |
| Intersection Signal Delay: 9.0 | Intersection LOS: A |
| Intersection Capacity Utilization 67.9% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 10: Liberty/5S




## Queues
### 10: Liberty/5S
02/04/2019

| Lane Group | EBL | EBR | WBL | WBT | NBT | SBT |
|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 34 | 1146 | 13 | 1009 | 177 | 54 |
| v/c Ratio | 0.08 | 0.57 | 0.01 | 0.42 | 0.69 | 0.22 |
| Control Delay | 1.4 | 5.1 | 7.0 | 9.3 | 32.0 | 15.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Total Delay | 1.4 | 5.1 | 7.0 | 9.5 | 32.0 | 15.9 |
| Queue Length 50th (ft) | 1 | 31 | 1 | 25 | 44 | 7 |
| Queue Length 95th (ft) | m3 | 89 | m11 | 263 | 103 | 36 |
| Internal Link Dist (ft) | | | | 248 | 353 | 223 |
| Turn Bay Length (ft) | | | | | | |
| Base Capacity (vph) | 484 | 2018 | 1280 | 2384 | 329 | 337 |
| Starvation Cap Reductn | 0 | 0 | 0 | 433 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.07 | 0.57 | 0.01 | 0.52 | 0.54 | 0.16 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 8 | 125 | 4 | 18 | 212 | 26 | 10 | 122 | 37 | 8 | 28 | 20 |
| Future Volume (vph) | 8 | 125 | 4 | 18 | 212 | 26 | 10 | 122 | 37 | 8 | 28 | 20 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.996 | | | 0.986 | | | 0.971 | | | 0.952 | |
| Flt Protected | | 0.997 | | | 0.996 | | | 0.997 | | | 0.993 | |
| Satd. Flow (prot) | 0 | 1615 | 0 | 0 | 1613 | 0 | 0 | 1584 | 0 | 0 | 1531 | 0 |
| Flt Permitted | | 0.979 | | | 0.976 | | | 0.985 | | | 0.954 | |
| Satd. Flow (perm) | 0 | 1586 | 0 | 0 | 1581 | 0 | 0 | 1565 | 0 | 0 | 1471 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 4 | | | 14 | | | 25 | | | 25 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 632 | | | 310 | | | 324 | | | 433 | |
| Travel Time (s) | | 14.4 | | | 7.0 | | | 7.4 | | | 9.8 | |
| Peak Hour Factor | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| Heavy Vehicles (%) | 25% | 4% | 0% | 17% | 3% | 4% | 0% | 2% | 14% | 0% | 4% | 10% |
| Parking (#/hr) | | 0 | | | 0 | | | 0 | | | 0 | |
| Adj. Flow (vph) | 10 | 156 | 5 | 23 | 265 | 33 | 13 | 153 | 46 | 10 | 35 | 25 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 171 | 0 | 0 | 321 | 0 | 0 | 212 | 0 | 0 | 70 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.14 | 1.00 | 1.00 | 1.14 | 1.00 | 1.00 | 1.14 | 1.00 | 1.00 | 1.14 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 4 | | | 2 | | | 2 | |
| Permitted Phases | 4 | | | 4 | | | 2 | | | 2 | | |
| Minimum Split (s) | 21.0 | 21.0 | | 21.0 | 21.0 | | 21.0 | 21.0 | | 21.0 | 21.0 | |
| Total Split (s) | 35.0 | 35.0 | | 35.0 | 35.0 | | 25.0 | 25.0 | | 25.0 | 25.0 | |
| Total Split (%) | 58.3% | 58.3% | | 58.3% | 58.3% | | 41.7% | 41.7% | | 41.7% | 41.7% | |
| Maximum Green (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 20.0 | 20.0 | | 20.0 | 20.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 30.0 | | | 30.0 | | | 20.0 | | | 20.0 | |
| Actuated g/C Ratio | | 0.50 | | | 0.50 | | | 0.33 | | | 0.33 | |
| v/c Ratio | | 0.22 | | | 0.40 | | | 0.39 | | | 0.14 | |
| Control Delay | | 9.1 | | | 10.9 | | | 16.1 | | | 10.9 | |



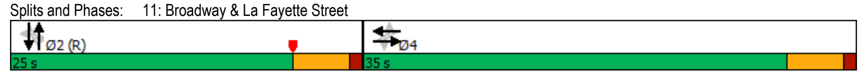
Lanes, Volumes, Timings
11: Broadway & La Fayette Street 02/04/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 9.1 | | | 10.9 | | | 16.1 | | | 10.9 | |
| LOS | | A | | | B | | | B | | | B | |
| Approach Delay | | 9.1 | | | 10.9 | | | 16.1 | | | 10.9 | |
| Approach LOS | | A | | | B | | | B | | | B | |

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 20 (33%), Referenced to phase 2:NBSB and 6:, Start of Yellow
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.40
Intersection Signal Delay: 11.9 Intersection LOS: B
Intersection Capacity Utilization 37.1% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 11: Broadway & La Fayette Street



| Lane Group | EBT | WBT | NBT | SBT |
|---|---|---|---|---|
| Lane Group Flow (vph) | 171 | 321 | 212 | 70 |
| v/c Ratio | 0.22 | 0.40 | 0.39 | 0.14 |
| Control Delay | 9.1 | 10.9 | 16.1 | 10.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 9.1 | 10.9 | 16.1 | 10.9 |
| Queue Length 50th (ft) | 31 | 64 | 50 | 11 |
| Queue Length 95th (ft) | 53 | 97 | 86 | 30 |
| Internal Link Dist (ft) | 552 | 230 | 244 | 353 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 795 | 797 | 538 | 507 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.22 | 0.40 | 0.39 | 0.14 |

Intersection Summary





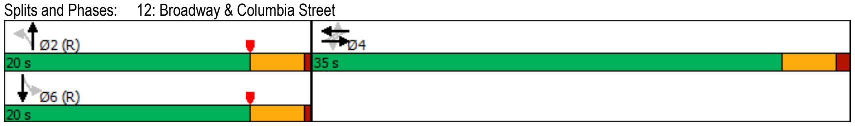
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 19 | 128 | 6 | 17 | 171 | 58 | 31 | 99 | 48 | 8 | 33 | 11 |
| Future Volume (vph) | 19 | 128 | 6 | 17 | 171 | 58 | 31 | 99 | 48 | 8 | 33 | 11 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.995 | | | 0.968 | | | 0.964 | | | 0.971 | |
| Flt Protected | | 0.994 | | | 0.997 | | | 0.991 | | | 0.992 | |
| Satd. Flow (prot) | 0 | 1828 | 0 | 0 | 1776 | 0 | 0 | 1786 | 0 | 0 | 1704 | 0 |
| Flt Permitted | | 0.946 | | | 0.976 | | | 0.944 | | | 0.947 | |
| Satd. Flow (perm) | 0 | 1740 | 0 | 0 | 1739 | 0 | 0 | 1701 | 0 | 0 | 1627 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 6 | | | 45 | | | 34 | | | 15 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 571 | | | 682 | | | 1003 | | | 324 | |
| Travel Time (s) | | 13.0 | | | 15.5 | | | 22.8 | | | 7.4 | |
| Peak Hour Factor | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 |
| Heavy Vehicles (%) | 16% | 1% | 0% | 0% | 4% | 2% | 0% | 2% | 2% | 12% | 3% | 17% |
| Parking (#/hr) | 0 | | | | | | | | | | | |
| Adj. Flow (vph) | 25 | 171 | 8 | 23 | 228 | 77 | 41 | 132 | 64 | 11 | 44 | 15 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 204 | 0 | 0 | 328 | 0 | 0 | 237 | 0 | 0 | 70 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 4 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 4 | | | 2 | | | 6 | | |
| Minimum Split (s) | 20.5 | 20.5 | | 20.5 | 20.5 | | 20.0 | 20.0 | | 20.0 | 20.0 | |
| Total Split (s) | 35.0 | 35.0 | | 35.0 | 35.0 | | 20.0 | 20.0 | | 20.0 | 20.0 | |
| Total Split (%) | 63.6% | 63.6% | | 63.6% | 63.6% | | 36.4% | 36.4% | | 36.4% | 36.4% | |
| Maximum Green (s) | 30.5 | 30.5 | | 30.5 | 30.5 | | 16.0 | 16.0 | | 16.0 | 16.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 0.5 | 0.5 | | 0.5 | 0.5 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 4.5 | | | 4.5 | | | 4.0 | | | 4.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 30.5 | | | 30.5 | | | 16.0 | | | 16.0 | |
| Actuated g/C Ratio | | 0.55 | | | 0.55 | | | 0.29 | | | 0.29 | |
| v/c Ratio | | 0.21 | | | 0.33 | | | 0.46 | | | 0.14 | |
| Control Delay | | 6.7 | | | 6.8 | | | 17.0 | | | 13.0 | |

## Lanes, Volumes, Timings
### 12: Broadway & Columbia Street
02/04/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 6.7 | | | 6.8 | | | 17.0 | | | 13.0 | |
| LOS | | A | | | A | | | B | | | B | |
| Approach Delay | | 6.7 | | | 6.8 | | | 17.0 | | | 13.0 | |
| Approach LOS | | A | | | A | | | B | | | B | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 55 | |
| Actuated Cycle Length: 55 | |
| Offset: 53 (96%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow | |
| Natural Cycle: 45 | |
| Control Type: Pretimed | |
| Maximum v/c Ratio: 0.46 | |
| Intersection Signal Delay: 10.2 | Intersection LOS: B |
| Intersection Capacity Utilization 36.6% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 12: Broadway & Columbia Street






## Queues
### 12: Broadway & Columbia Street
02/04/2019

| Lane Group | EBT | WBT | NBT | SBT |
|---|---|---|---|---|
| Lane Group Flow (vph) | 204 | 328 | 237 | 70 |
| v/c Ratio | 0.21 | 0.33 | 0.46 | 0.14 |
| Control Delay | 6.7 | 6.8 | 17.0 | 13.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 6.7 | 6.8 | 17.0 | 13.0 |
| Queue Length 50th (ft) | 29 | 44 | 53 | 13 |
| Queue Length 95th (ft) | 45 | 63 | 83 | 30 |
| Internal Link Dist (ft) | 491 | 602 | 923 | 244 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 967 | 984 | 518 | 483 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.21 | 0.33 | 0.46 | 0.14 |

Intersection Summary

| Lane Group | SBL | SBR | SEL | SET | NWT | NWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 50 | 73 | 52 | 332 | 376 | 33 |
| Future Volume (vph) | 50 | 73 | 52 | 332 | 376 | 33 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 |
| Frt | 0.920 | | | | 0.988 | |
| Flt Protected | 0.980 | | | 0.993 | | |
| Satd. Flow (prot) | 1529 | 0 | 0 | 3490 | 3526 | 0 |
| Flt Permitted | 0.980 | | | 0.993 | | |
| Satd. Flow (perm) | 1529 | 0 | 0 | 3490 | 3526 | 0 |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 1003 | | | 262 | 183 | |
| Travel Time (s) | 22.8 | | | 6.0 | 4.2 | |
| Peak Hour Factor | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 |
| Heavy Vehicles (%) | 2% | 0% | 1% | 3% | 1% | 3% |
| Parking (#/hr) | 0 | | | | | |
| Adj. Flow (vph) | 60 | 88 | 63 | 400 | 453 | 40 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 148 | 0 | 0 | 463 | 493 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 12 | | | 0 | 0 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.14 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Sign Control | Stop | | | Free | Free | |

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 39.4% ICU Level of Service A

Analysis Period (min) 15





| Intersection | |
|---|---|
| Int Delay, s/veh | 2.7 |

| Movement | SBL | SBR | SEL | SET | NWT | NWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 50 | 73 | 52 | 332 | 376 | 33 |
| Future Vol, veh/h | 50 | 73 | 52 | 332 | 376 | 33 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 83 | 83 | 83 | 83 | 83 | 83 |
| Heavy Vehicles, % | 2 | 0 | 1 | 3 | 1 | 3 |
| Mvmt Flow | 60 | 88 | 63 | 400 | 453 | 40 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 799 | 247 | 493 | 0 | - | 0 |
| Stage 1 | 473 | - | - | - | - | - |
| Stage 2 | 326 | - | - | - | - | - |
| Critical Hdwy | 6.84 | 6.9 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.84 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.84 | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 3.3 | 2.21 | - | - | - |
| Pot Cap-1 Maneuver | 323 | 759 | 1074 | - | - | - |
| Stage 1 | 593 | - | - | - | - | - |
| Stage 2 | 704 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 299 | 759 | 1074 | - | - | - |
| Mov Cap-2 Maneuver | 299 | - | - | - | - | - |
| Stage 1 | 549 | - | - | - | - | - |
| Stage 2 | 704 | - | - | - | - | - |

| Approach | SB | SE | NW |
|---|---|---|---|
| HCM Control Delay, s | 16.3 | 1.3 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NWT | NWR | SEL | SET | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 1074 | - | 467 |
| HCM Lane V/C Ratio | - | - | 0.058 | - | 0.317 |
| HCM Control Delay (s) | - | - | 8.6 | 0.2 | 16.3 |
| HCM Lane LOS | - | - | A | A | C |
| HCM 95th %tile Q(veh) | - | - | 0.2 | - | 1.3 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 11 | 902 | 1 | 10 | 5 | 0 | 0 | 8 | 15 |
| Future Volume (vph) | 0 | 0 | 0 | 11 | 902 | 1 | 10 | 5 | 0 | 0 | 8 | 15 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | | | | | | | | | 0.914 | |
| Flt Protected | | | | | 0.999 | | | 0.967 | | | | |
| Satd. Flow (prot) | 0 | 0 | 0 | 0 | 3499 | 0 | 0 | 1729 | 0 | 0 | 1622 | 0 |
| Flt Permitted | | | | | 0.999 | | | 0.896 | | | | |
| Satd. Flow (perm) | 0 | 0 | 0 | 0 | 3499 | 0 | 0 | 1602 | 0 | 0 | 1622 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | | | | | | | | | 16 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 328 | | | 342 | | | 77 | | | 399 | |
| Travel Time (s) | | 7.5 | | | 7.8 | | | 1.8 | | | 9.1 | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Heavy Vehicles (%) | 0% | 0% | 0% | 9% | 3% | 0% | 0% | 20% | 0% | 0% | 0% | 11% |
| Adj. Flow (vph) | 0 | 0 | 0 | 12 | 970 | 1 | 11 | 5 | 0 | 0 | 9 | 16 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 0 | 0 | 983 | 0 | 0 | 16 | 0 | 0 | 25 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | | | | 1 | 0 | | 1 | 1 | | | 2 | |
| Detector Template | | | | Left | | | Left | | | | Thru | |
| Leading Detector (ft) | | | | 20 | 0 | | 20 | 6 | | | 100 | |
| Trailing Detector (ft) | | | | 0 | 0 | | 0 | 0 | | | 0 | |
| Detector 1 Position(ft) | | | | 0 | 0 | | 0 | 0 | | | 0 | |
| Detector 1 Size(ft) | | | | 20 | 0 | | 20 | 6 | | | 6 | |
| Detector 1 Type | | | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | | | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | |
| Detector 1 Queue (s) | | | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | |
| Detector 1 Delay (s) | | | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | |
| Detector 2 Position(ft) | | | | | | | | | | | 94 | |
| Detector 2 Size(ft) | | | | | | | | | | | 6 | |
| Detector 2 Type | | | | | | | | | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | | | | | | | | | | 0.0 | |
| Turn Type | | | | Perm | NA | | Perm | NA | | | NA | |
| Protected Phases | | | | | 2 | | | 4 | | | 8 | |
| Permitted Phases | | | | 2 | | | 4 | | | | | |
| Detector Phase | | | | 2 | 2 | | 4 | 4 | | | 8 | |
| Switch Phase | | | | | | | | | | | | |



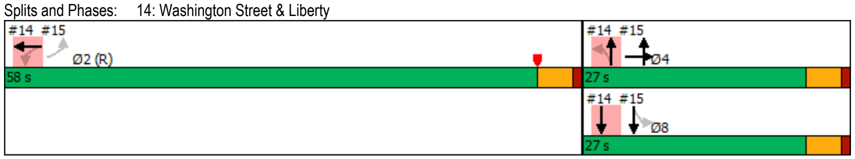


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Initial (s) | | | | 4.0 | 4.0 | | 4.0 | 4.0 | | | 4.0 | |
| Minimum Split (s) | | | | 8.5 | 8.5 | | 8.5 | 8.5 | | | 20.5 | |
| Total Split (s) | | | | 58.0 | 58.0 | | 27.0 | 27.0 | | | 27.0 | |
| Total Split (%) | | | | 68.2% | 68.2% | | 31.8% | 31.8% | | | 31.8% | |
| Maximum Green (s) | | | | 53.5 | 53.5 | | 22.5 | 22.5 | | | 22.5 | |
| Yellow Time (s) | | | | 3.5 | 3.5 | | 3.5 | 3.5 | | | 3.5 | |
| All-Red Time (s) | | | | 1.0 | 1.0 | | 1.0 | 1.0 | | | 1.0 | |
| Lost Time Adjust (s) | | | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | | | | 4.5 | | | 4.5 | | | 4.5 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | | | | 3.0 | 3.0 | | 3.0 | 3.0 | | | 3.0 | |
| Recall Mode | | | | C-Min | C-Min | | None | None | | | None | |
| Walk Time (s) | | | | 5.0 | 5.0 | | 5.0 | 5.0 | | | 5.0 | |
| Flash Dont Walk (s) | | | | 11.0 | 11.0 | | 11.0 | 11.0 | | | 11.0 | |
| Pedestrian Calls (#/hr) | | | | 0 | 0 | | 0 | 0 | | | 0 | |
| Act Effct Green (s) | | | | | 48.2 | | | 27.8 | | | 27.8 | |
| Actuated g/C Ratio | | | | | 0.57 | | | 0.33 | | | 0.33 | |
| v/c Ratio | | | | | 0.50 | | | 0.03 | | | 0.05 | |
| Control Delay | | | | | 25.8 | | | 6.5 | | | 10.3 | |
| Queue Delay | | | | | 0.1 | | | 0.0 | | | 0.0 | |
| Total Delay | | | | | 25.9 | | | 6.5 | | | 10.3 | |
| LOS | | | | | C | | | A | | | B | |
| Approach Delay | | | | | 25.9 | | | 6.5 | | | 10.3 | |
| Approach LOS | | | | | C | | | A | | | B | |

Intersection Summary

Area Type: Other
Cycle Length: 85
Actuated Cycle Length: 85
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:, Start of Yellow
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.66
Intersection Signal Delay: 25.2 Intersection LOS: C
Intersection Capacity Utilization 40.3% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 14: Washington Street & Liberty



Queues
14: Washington Street & Liberty 02/04/2019

| Lane Group | WBT | NBT | SBT |
|---|---|---|---|
| Lane Group Flow (vph) | 983 | 16 | 25 |
| v/c Ratio | 0.50 | 0.03 | 0.05 |
| Control Delay | 25.8 | 6.5 | 10.3 |
| Queue Delay | 0.1 | 0.0 | 0.0 |
| Total Delay | 25.9 | 6.5 | 10.3 |
| Queue Length 50th (ft) | 271 | 3 | 3 |
| Queue Length 95th (ft) | 338 | m4 | 18 |
| Internal Link Dist (ft) | 262 | 1 | 319 |
| Turn Bay Length (ft) | | | |
| Base Capacity (vph) | 2212 | 527 | 545 |
| Starvation Cap Reductn | 0 | 0 | 0 |
| Spillback Cap Reductn | 235 | 81 | 83 |
| Storage Cap Reductn | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.50 | 0.04 | 0.05 |

Intersection Summary
m Volume for 95th percentile queue is metered by upstream signal.



Lanes, Volumes, Timings
15: 5S (Oriskany) & Washington Street 02/04/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 4 | 1032 | 4 | 0 | 0 | 0 | 0 | 11 | 23 | 3 | 15 | 0 |
| Future Volume (vph) | 4 | 1032 | 4 | 0 | 0 | 0 | 0 | 11 | 23 | 3 | 15 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 0.91 | 0.91 | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.999 | | | | | | 0.910 | | | | |
| Flt Protected | | | | | | | | | | | 0.992 | |
| Satd. Flow (prot) | 0 | 5076 | 0 | 0 | 0 | 0 | 0 | 1441 | 0 | 0 | 1885 | 0 |
| Flt Permitted | | | | | | | | | | | 0.980 | |
| Satd. Flow (perm) | 0 | 5076 | 0 | 0 | 0 | 0 | 0 | 1441 | 0 | 0 | 1862 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 1 | | | | | | 24 | | | | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 323 | | | 334 | | | 406 | | | 77 | |
| Travel Time (s) | | 7.3 | | | 7.6 | | | 9.2 | | | 1.8 | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Heavy Vehicles (%) | 25% | 2% | 0% | 2% | 2% | 2% | 0% | 0% | 12% | 0% | 0% | 0% |
| Parking (#/hr) | | | | | | | | 0 | | | | |
| Adj. Flow (vph) | 4 | 1086 | 4 | 0 | 0 | 0 | 0 | 12 | 24 | 3 | 16 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1094 | 0 | 0 | 0 | 0 | 0 | 36 | 0 | 0 | 19 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.14 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | | | | | 2 | | 1 | 1 | |
| Detector Template | Left | Thru | | | | | | Thru | | Left | | |
| Leading Detector (ft) | 20 | 100 | | | | | | 100 | | 20 | 6 | |
| Trailing Detector (ft) | 0 | 0 | | | | | | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | | | | | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | | | | | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | | | | | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | | | | | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | | | | | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | | | | | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | | | | 94 | | | | |
| Detector 2 Size(ft) | | 6 | | | | | | 6 | | | | |
| Detector 2 Type | | Cl+Ex | | | | | | Cl+Ex | | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | | | | 0.0 | | | | |
| Turn Type | custom | NA | | | | | | NA | | Perm | NA | |
| Protected Phases | | 4! | | | | | | 4! | | | 8! | |
| Permitted Phases | 2 | | | | | | | | | 8! | | |
| Detector Phase | 2 | 4 | | | | | | 4 | | 8 | 8 | |

## Lanes, Volumes, Timings
## 15: 5S (Oriskany) & Washington Street

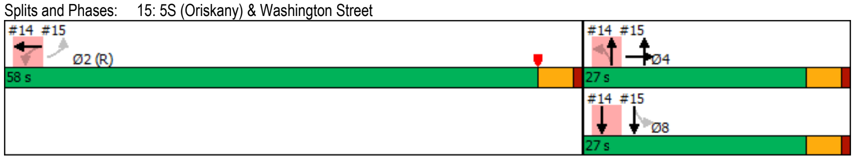
02/04/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | | | | | | 4.0 | | 4.0 | 4.0 | |
| Minimum Split (s) | 8.5 | 8.5 | | | | | | 8.5 | | 20.5 | 20.5 | |
| Total Split (s) | 58.0 | 27.0 | | | | | | 27.0 | | 27.0 | 27.0 | |
| Total Split (%) | 68.2% | 31.8% | | | | | | 31.8% | | 31.8% | 31.8% | |
| Maximum Green (s) | 53.5 | 22.5 | | | | | | 22.5 | | 22.5 | 22.5 | |
| Yellow Time (s) | 3.5 | 3.5 | | | | | | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | | | | | | 1.0 | | 1.0 | 1.0 | |
| Lost Time Adjust (s) | | 0.0 | | | | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 4.5 | | | | | | 4.5 | | | 4.5 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | | | | | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | C-Min | None | | | | | | None | | None | None | |
| Walk Time (s) | 5.0 | 5.0 | | | | | | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | | | | | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | | | | | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 27.8 | | | | | | 27.8 | | | 27.8 | |
| Actuated g/C Ratio | | 0.33 | | | | | | 0.33 | | | 0.33 | |
| v/c Ratio | | 0.66 | | | | | | 0.07 | | | 0.03 | |
| Control Delay | | 35.9 | | | | | | 9.5 | | | 22.4 | |
| Queue Delay | | 1.0 | | | | | | 0.0 | | | 0.0 | |
| Total Delay | | 36.9 | | | | | | 9.5 | | | 22.4 | |
| LOS | | D | | | | | | A | | | C | |
| Approach Delay | | 36.9 | | | | | | 9.5 | | | 22.4 | |
| Approach LOS | | D | | | | | | A | | | C | |

### Intersection Summary

Area Type: Other
Cycle Length: 85
Actuated Cycle Length: 85
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:, Start of Yellow
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.66
Intersection Signal Delay: 35.8 Intersection LOS: D
Intersection Capacity Utilization 31.0% ICU Level of Service A
Analysis Period (min) 15
! Phase conflict between lane groups.

Splits and Phases: 15: 5S (Oriskany) & Washington Street






## Queues
## 15: 5S (Oriskany) & Washington Street

02/04/2019

| Lane Group | EBT | NBT | SBT |
|---|---|---|---|
| Lane Group Flow (vph) | 1094 | 36 | 19 |
| v/c Ratio | 0.66 | 0.07 | 0.03 |
| Control Delay | 35.9 | 9.5 | 22.4 |
| Queue Delay | 1.0 | 0.0 | 0.0 |
| Total Delay | 36.9 | 9.5 | 22.4 |
| Queue Length 50th (ft) | 185 | 4 | 8 |
| Queue Length 95th (ft) | 160 | 21 | m18 |
| Internal Link Dist (ft) | 243 | 326 | 1 |
| Turn Bay Length (ft) | | | |
| Base Capacity (vph) | 1672 | 490 | 613 |
| Starvation Cap Reductn | 310 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.80 | 0.07 | 0.03 |

### Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings
16: La Fayette Street & Washington Street 02/04/2019

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 6 | 94 | 144 | 18 | 9 | 7 |
| Future Volume (vph) | 6 | 94 | 144 | 18 | 9 | 7 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | 0.985 | | 0.942 | |
| Flt Protected | | 0.997 | | | 0.972 | |
| Satd. Flow (prot) | 0 | 1466 | 1591 | 0 | 1389 | 0 |
| Flt Permitted | | 0.997 | | | 0.972 | |
| Satd. Flow (perm) | 0 | 1466 | 1591 | 0 | 1389 | 0 |
| Link Speed (mph) | | 30 | 30 | | 30 | |
| Link Distance (ft) | | 310 | 319 | | 406 | |
| Travel Time (s) | | 7.0 | 7.3 | | 9.2 | |
| Peak Hour Factor | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 |
| Heavy Vehicles (%) | 5% | 17% | 6% | 5% | 11% | 15% |
| Parking (#/hr) | | 0 | 0 | | 0 | |
| Adj. Flow (vph) | 8 | 121 | 185 | 23 | 12 | 9 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 129 | 208 | 0 | 21 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 0 | 0 | | 12 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.14 | 1.14 | 1.00 | 1.14 | 1.00 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Sign Control | | Free | Free | | Stop | |

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 19.9% ICU Level of Service A

Analysis Period (min) 15



HCM 2010 TWSC
16: La Fayette Street & Washington Street 02/04/2019

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.8 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 6 | 94 | 144 | 18 | 9 | 7 |
| Future Vol, veh/h | 6 | 94 | 144 | 18 | 9 | 7 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 78 | 78 | 78 | 78 | 78 | 78 |
| Heavy Vehicles, % | 5 | 17 | 6 | 5 | 11 | 15 |
| Mvmt Flow | 8 | 121 | 185 | 23 | 12 | 9 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 208 | 0 | - | 0 | 334 | 197 |
| Stage 1 | - | - | - | - | 197 | - |
| Stage 2 | - | - | - | - | 137 | - |
| Critical Hdwy | 4.15 | - | - | - | 6.51 | 6.35 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.51 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.51 | - |
| Follow-up Hdwy | 2.245 | - | - | - | 3.599 | 3.435 |
| Pot Cap-1 Maneuver | 1345 | - | - | - | 643 | 812 |
| Stage 1 | - | - | - | - | 815 | - |
| Stage 2 | - | - | - | - | 868 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1345 | - | - | - | 639 | 812 |
| Mov Cap-2 Maneuver | - | - | - | - | 639 | - |
| Stage 1 | - | - | - | - | 810 | - |
| Stage 2 | - | - | - | - | 868 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.5 | 0 | 10.3 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1345 | - | - | - | 705 |
| HCM Lane V/C Ratio | 0.006 | - | - | - | 0.029 |
| HCM Control Delay (s) | 7.7 | 0 | - | - | 10.3 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.1 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 24 | 861 | 55 | 26 | 33 | 0 | 0 | 8 | 23 |
| Future Volume (vph) | 0 | 0 | 0 | 24 | 861 | 55 | 26 | 33 | 0 | 0 | 8 | 23 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | | | 0.991 | | | | | | 0.901 | |
| Flt Protected | | | | 0.950 | | | | 0.979 | | | | |
| Satd. Flow (prot) | 0 | 0 | 0 | 1671 | 3448 | 0 | 0 | 1829 | 0 | 0 | 1712 | 0 |
| Flt Permitted | | | | 0.950 | | | | 0.979 | | | | |
| Satd. Flow (perm) | 0 | 0 | 0 | 1671 | 3448 | 0 | 0 | 1829 | 0 | 0 | 1712 | 0 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 342 | | | 432 | | | 132 | | | 336 | |
| Travel Time (s) | | 7.8 | | | 9.8 | | | 3.0 | | | 7.6 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 0% | 0% | 0% | 8% | 4% | 0% | 0% | 3% | 0% | 0% | 0% | 0% |
| Adj. Flow (vph) | 0 | 0 | 0 | 26 | 936 | 60 | 28 | 36 | 0 | 0 | 9 | 25 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 0 | 26 | 996 | 0 | 0 | 64 | 0 | 0 | 34 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 42.1% ICU Level of Service A

Analysis Period (min) 15





| Intersection | |
|---|---|
| Int Delay, s/veh | 1.7 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 0 | 0 | 24 | 861 | 55 | 26 | 33 | 0 | 0 | 8 | 23 |
| Future Vol, veh/h | 0 | 0 | 0 | 24 | 861 | 55 | 26 | 33 | 0 | 0 | 8 | 23 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | 0 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | - | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 8 | 4 | 0 | 0 | 3 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 0 | 0 | 26 | 936 | 60 | 28 | 36 | 0 | 0 | 9 | 25 |

| Major/Minor | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 0 | 525 | 1048 | - | - | 1018 | 498 |
| Stage 1 | - | - | - | 0 | 0 | - | - | 1018 | - |
| Stage 2 | - | - | - | 525 | 1048 | - | - | 0 | - |
| Critical Hdwy | 4.26 | - | - | 7.5 | 6.56 | - | - | 6.5 | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | 6.5 | 5.56 | - | - | - | - |
| Follow-up Hdwy | 2.28 | - | - | 3.5 | 4.03 | - | - | 4 | 3.3 |
| Pot Cap-1 Maneuver | - | - | - | 440 | 225 | 0 | 0 | 239 | 523 |
| Stage 1 | - | - | - | - | - | 0 | 0 | 317 | - |
| Stage 2 | - | - | - | 509 | 301 | 0 | 0 | - | - |
| Platoon blocked, % | | - | - | | | | | | |
| Mov Cap-1 Maneuver | - | - | - | 407 | 225 | - | - | 239 | 523 |
| Mov Cap-2 Maneuver | - | - | - | 407 | 225 | - | - | 239 | - |
| Stage 1 | - | - | - | - | - | - | - | 317 | - |
| Stage 2 | - | - | - | 471 | 301 | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | | 21.6 | 14.8 |
| HCM LOS | | C | B |

| Minor Lane/Major Mvmt | NBLn1 | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 280 | - | - | - | 400 |
| HCM Lane V/C Ratio | 0.229 | - | - | - | 0.084 |
| HCM Control Delay (s) | 21.6 | - | - | - | 14.8 |
| HCM Lane LOS | C | - | - | - | B |
| HCM 95th %tile Q(veh) | 0.9 | - | - | - | 0.3 |

## Lanes, Volumes, Timings
## 18: 5S (Oriskany) & Seneca Street

02/04/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 15 | 1040 | 4 | 0 | 0 | 0 | 0 | 44 | 19 | 5 | 28 | 0 |
| Future Volume (vph) | 15 | 1040 | 4 | 0 | 0 | 0 | 0 | 44 | 19 | 5 | 28 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 0.91 | 0.91 | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.999 | | | | | | 0.960 | | | | |
| Flt Protected | | 0.999 | | | | | | | | | 0.993 | |
| Satd. Flow (prot) | 0 | 5073 | 0 | 0 | 0 | 0 | 0 | 1642 | 0 | 0 | 1775 | 0 |
| Flt Permitted | | 0.999 | | | | | | | | | 0.993 | |
| Satd. Flow (perm) | 0 | 5073 | 0 | 0 | 0 | 0 | 0 | 1642 | 0 | 0 | 1775 | 0 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 334 | | | 383 | | | 385 | | | 132 | |
| Travel Time (s) | | 7.6 | | | 8.7 | | | 8.8 | | | 3.0 | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Heavy Vehicles (%) | 6% | 2% | 0% | 0% | 2% | 0% | 0% | 0% | 0% | 20% | 4% | 0% |
| Parking (#/hr) | | | | | | | | 0 | | | | |
| Adj. Flow (vph) | 16 | 1106 | 4 | 0 | 0 | 0 | 0 | 47 | 20 | 5 | 30 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1126 | 0 | 0 | 0 | 0 | 0 | 67 | 0 | 0 | 35 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.14 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |

| Intersection Summary | | |
|---|---|---|
| Area Type: | Other | |
| Control Type: Unsignalized | | |
| Intersection Capacity Utilization 32.9% | | ICU Level of Service A |
| Analysis Period (min) 15 | | |



## HCM 2010 TWSC
## 18: 5S (Oriskany) & Seneca Street

02/04/2019

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.1 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 15 | 1040 | 4 | 0 | 0 | 0 | 0 | 44 | 19 | 5 | 28 | 0 |
| Future Vol, veh/h | 15 | 1040 | 4 | 0 | 0 | 0 | 0 | 44 | 19 | 5 | 28 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | - | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 |
| Heavy Vehicles, % | 6 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 20 | 4 | 0 |
| Mvmt Flow | 16 | 1106 | 4 | 0 | 0 | 0 | 0 | 47 | 20 | 5 | 30 | 0 |

| Major/Minor | Major1 | | | | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 0 | | | | - | 1140 | 555 | 498 | 1142 | - |
| Stage 1 | - | - | - | | | | - | 1140 | - | 0 | 0 | - |
| Stage 2 | - | - | - | | | | - | 0 | - | 498 | 1142 | - |
| Critical Hdwy | 5.42 | - | - | | | | - | 6.5 | 7.1 | 6.8 | 6.58 | - |
| Critical Hdwy Stg 1 | - | - | - | | | | - | 5.5 | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | | | | - | - | - | 7.1 | 5.58 | - |
| Follow-up Hdwy | 3.16 | - | - | | | | - | 4 | 3.9 | 4 | 4.04 | - |
| Pot Cap-1 Maneuver | - | - | - | | | | 0 | 203 | 411 | 457 | 196 | 0 |
| Stage 1 | - | - | - | | | | 0 | 278 | - | - | - | 0 |
| Stage 2 | - | - | - | | | | 0 | - | - | 439 | 269 | 0 |
| Platoon blocked, % | | - | - | | | | | | | | | |
| Mov Cap-1 Maneuver | - | - | - | | | | - | 203 | 411 | 357 | 196 | - |
| Mov Cap-2 Maneuver | - | - | - | | | | - | 203 | - | 357 | 196 | - |
| Stage 1 | - | - | - | | | | - | 278 | - | - | - | - |
| Stage 2 | - | - | - | | | | - | - | - | 347 | 269 | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | | 25.7 | 25.6 |
| HCM LOS | | D | D |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 240 | - | - | - | 210 |
| HCM Lane V/C Ratio | 0.279 | - | - | - | 0.167 |
| HCM Control Delay (s) | 25.7 | - | - | - | 25.6 |
| HCM Lane LOS | D | - | - | - | D |
| HCM 95th %tile Q(veh) | 1.1 | - | - | - | 0.6 |

Lanes, Volumes, Timings
19: Seneca Street & La Fayette Street 02/04/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ✣ | | | ✣ | | | ✣ | | | ✣ | |
| Traffic Volume (vph) | 18 | 138 | 15 | 13 | 212 | 34 | 9 | 8 | 14 | 8 | 2 | 25 |
| Future Volume (vph) | 18 | 138 | 15 | 13 | 212 | 34 | 9 | 8 | 14 | 8 | 2 | 25 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.988 | | | 0.982 | | | 0.940 | | | 0.904 | |
| Flt Protected | | 0.995 | | | 0.998 | | | 0.986 | | | 0.988 | |
| Satd. Flow (prot) | 0 | 1603 | 0 | 0 | 1636 | 0 | 0 | 1585 | 0 | 0 | 1507 | 0 |
| Flt Permitted | | 0.995 | | | 0.998 | | | 0.986 | | | 0.988 | |
| Satd. Flow (perm) | 0 | 1603 | 0 | 0 | 1636 | 0 | 0 | 1585 | 0 | 0 | 1507 | 0 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 319 | | | 216 | | | 181 | | | 385 | |
| Travel Time (s) | | 7.3 | | | 4.9 | | | 4.1 | | | 8.8 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 0% | 6% | 0% | 0% | 3% | 0% | 0% | 0% | 0% | 4% | 7% | 0% |
| Parking (#/hr) | | 0 | | | 0 | | | 0 | | | 0 | |
| Adj. Flow (vph) | 20 | 150 | 16 | 14 | 230 | 37 | 10 | 9 | 15 | 9 | 2 | 27 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 186 | 0 | 0 | 281 | 0 | 0 | 34 | 0 | 0 | 38 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.14 | 1.00 | 1.00 | 1.14 | 1.00 | 1.00 | 1.14 | 1.00 | 1.00 | 1.14 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |

Intersection Summary
Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 25.9% ICU Level of Service A
Analysis Period (min) 15



HCM 2010 TWSC
19: Seneca Street & La Fayette Street 02/04/2019

| Intersection | |
|---|---|
| Int Delay, s/veh | 2 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ✣ | | | ✣ | | | ✣ | | | ✣ | |
| Traffic Vol, veh/h | 18 | 138 | 15 | 13 | 212 | 34 | 9 | 8 | 14 | 8 | 2 | 25 |
| Future Vol, veh/h | 18 | 138 | 15 | 13 | 212 | 34 | 9 | 8 | 14 | 8 | 2 | 25 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 6 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 4 | 7 | 0 |
| Mvmt Flow | 20 | 150 | 16 | 14 | 230 | 37 | 10 | 9 | 15 | 9 | 2 | 27 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 267 | 0 | 0 | 166 | 0 | 0 | 489 | 493 | 158 | 487 | 483 | 249 |
| Stage 1 | - | - | - | - | - | - | 198 | 198 | - | 277 | 277 | - |
| Stage 2 | - | - | - | - | - | - | 291 | 295 | - | 210 | 206 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.1 | 6.5 | 6.2 | 7.14 | 6.57 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.14 | 5.57 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.14 | 5.57 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.536 | 4.063 | 3.3 |
| Pot Cap-1 Maneuver | 1308 | - | - | 1424 | - | - | 493 | 480 | 893 | 488 | 476 | 795 |
| Stage 1 | - | - | - | - | - | - | 808 | 741 | - | 725 | 672 | - |
| Stage 2 | - | - | - | - | - | - | 721 | 673 | - | 788 | 722 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1308 | - | - | 1424 | - | - | 464 | 466 | 893 | 463 | 462 | 795 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 464 | 466 | - | 463 | 462 | - |
| Stage 1 | - | - | - | - | - | - | 794 | 728 | - | 713 | 664 | - |
| Stage 2 | - | - | - | - | - | - | 686 | 665 | - | 752 | 710 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 0.8 | 0.4 | 11.4 | 10.8 |
| HCM LOS | | | B | B |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 593 | 1308 | - | - | 1424 | - | - | 660 |
| HCM Lane V/C Ratio | 0.057 | 0.015 | - | - | 0.01 | - | - | 0.058 |
| HCM Control Delay (s) | 11.4 | 7.8 | 0 | - | 7.6 | 0 | - | 10.8 |
| HCM Lane LOS | B | A | A | - | A | A | - | B |
| HCM 95th %tile Q(veh) | 0.2 | 0 | - | - | 0 | - | - | 0.2 |

| Lane Group | WBT | WBR2 | SBR | SBR2 | NET | SWT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 823 | 9 | 36 | 56 | 360 | 326 |
| Future Volume (vph) | 823 | 9 | 36 | 56 | 360 | 326 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 0.91 | 0.91 | 1.00 | 1.00 | 0.95 | 0.95 |
| Frt | 0.998 | | 0.865 | | | |
| Flt Protected | | | | | | |
| Satd. Flow (prot) | 5027 | 0 | 1425 | 0 | 3539 | 3539 |
| Flt Permitted | | | | | | |
| Satd. Flow (perm) | 5027 | 0 | 1425 | 0 | 3539 | 3539 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | 116 | | 116 | | | |
| Link Speed (mph) | 30 | | | | 30 | 30 |
| Link Distance (ft) | 553 | | | | 118 | 251 |
| Travel Time (s) | 12.6 | | | | 2.7 | 5.7 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Heavy Vehicles (%) | 3% | 0% | 2% | 5% | 2% | 2% |
| Parking (#/hr) | | | 0 | | | |
| Adj. Flow (vph) | 885 | 10 | 39 | 60 | 387 | 351 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 895 | 0 | 99 | 0 | 387 | 351 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Right | Right | Left | Left |
| Median Width(ft) | 0 | | | | 0 | 0 |
| Link Offset(ft) | 0 | | | | 0 | 0 |
| Crosswalk Width(ft) | 16 | | | | 16 | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.14 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | | 9 | 9 | 9 | | |
| Number of Detectors | 2 | | 1 | | 2 | 2 |
| Detector Template | Thru | | Right | | Thru | Thru |
| Leading Detector (ft) | 100 | | 20 | | 100 | 100 |
| Trailing Detector (ft) | 0 | | 0 | | 0 | 0 |
| Detector 1 Position(ft) | 0 | | 0 | | 0 | 0 |
| Detector 1 Size(ft) | 6 | | 20 | | 6 | 6 |
| Detector 1 Type | Cl+Ex | | Cl+Ex | | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | |
| Detector 1 Extend (s) | 0.0 | | 0.0 | | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | | 0.0 | | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | | 0.0 | | 0.0 | 0.0 |
| Detector 2 Position(ft) | 94 | | | | 94 | 94 |
| Detector 2 Size(ft) | 6 | | | | 6 | 6 |
| Detector 2 Type | Cl+Ex | | | | Cl+Ex | Cl+Ex |
| Detector 2 Channel | | | | | | |
| Detector 2 Extend (s) | 0.0 | | | | 0.0 | 0.0 |
| Turn Type | NA | | Perm | | NA | NA |
| Protected Phases | 2 | | | | 8 | 4 |
| Permitted Phases | | | 3 | | | |
| Detector Phase | 2 | | 3 | | 8 | 4 |



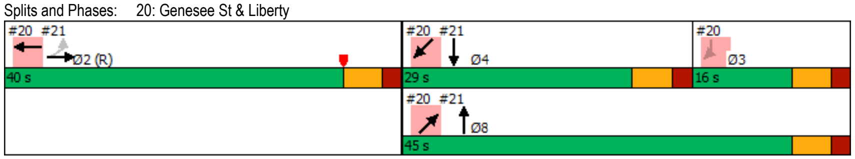


| Lane Group | WBT | WBR2 | SBR | SBR2 | NET | SWT |
|---|---|---|---|---|---|---|
| Switch Phase | | | | | | |
| Minimum Initial (s) | 15.0 | | 6.0 | | 6.0 | 6.0 |
| Minimum Split (s) | 46.0 | | 12.0 | | 12.0 | 12.0 |
| Total Split (s) | 40.0 | | 16.0 | | 45.0 | 29.0 |
| Total Split (%) | 47.1% | | 18.8% | | 52.9% | 34.1% |
| Maximum Green (s) | 34.0 | | 10.0 | | 39.0 | 23.0 |
| Yellow Time (s) | 4.0 | | 4.0 | | 4.0 | 4.0 |
| All-Red Time (s) | 2.0 | | 2.0 | | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | | 6.0 | | 6.0 | 6.0 |
| Lead/Lag | | | Lag | | | Lead |
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 1.0 | | 2.5 | | 2.5 | 2.5 |
| Recall Mode | C-Min | | None | | None | None |
| Walk Time (s) | 7.0 | | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | 33.0 | | 29.0 | | 29.0 | 29.0 |
| Pedestrian Calls (#/hr) | 0 | | 0 | | 0 | 0 |
| Act Effct Green (s) | 47.1 | | 6.6 | | 25.9 | 15.7 |
| Actuated g/C Ratio | 0.55 | | 0.08 | | 0.30 | 0.18 |
| v/c Ratio | 0.32 | | 0.45 | | 0.36 | 0.54 |
| Control Delay | 10.3 | | 12.8 | | 3.7 | 34.1 |
| Queue Delay | 0.0 | | 0.0 | | 0.1 | 0.0 |
| Total Delay | 10.3 | | 12.8 | | 3.8 | 34.1 |
| LOS | B | | B | | A | C |
| Approach Delay | 10.3 | | | | 3.8 | 34.1 |
| Approach LOS | B | | | | A | C |

Intersection Summary

Area Type: Other
Cycle Length: 85
Actuated Cycle Length: 85
Offset: 10 (12%), Referenced to phase 2:WBT and 6:, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.54
Intersection Signal Delay: 13.8 Intersection LOS: B
Intersection Capacity Utilization 45.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 20: Genesee St & Liberty



## Queues
### 20: Genesee St & Liberty

02/04/2019

| Lane Group | WBT | SBR | NET | SWT |
|---|---|---|---|---|
| Lane Group Flow (vph) | 895 | 99 | 387 | 351 |
| v/c Ratio | 0.32 | 0.45 | 0.36 | 0.54 |
| Control Delay | 10.3 | 12.8 | 3.7 | 34.1 |
| Queue Delay | 0.0 | 0.0 | 0.1 | 0.0 |
| Total Delay | 10.3 | 12.8 | 3.8 | 34.1 |
| Queue Length 50th (ft) | 77 | 0 | 7 | 91 |
| Queue Length 95th (ft) | 129 | 35 | 8 | 124 |
| Internal Link Dist (ft) | 473 | | 38 | 171 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 2836 | 270 | 1623 | 957 |
| Starvation Cap Reductn | 0 | 0 | 457 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.32 | 0.37 | 0.33 | 0.37 |

Intersection Summary



## Lanes, Volumes, Timings
### 21: Genesee street/Genesee St & 5S (Oriskany)

02/04/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 1 | 1016 | 119 | 0 | 0 | 0 | 0 | 361 | 79 | 0 | 349 | 0 |
| Future Volume (vph) | 1 | 1016 | 119 | 0 | 0 | 0 | 0 | 361 | 79 | 0 | 349 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | 150 | 150 | | 0 | 150 | | 0 | 150 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 0.86 | 0.86 | 0.86 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 0.91 | 1.00 |
| Frt | | 0.984 | | | | | | 0.973 | | | | |
| Flt Protected | | | | | | | | | | | | |
| Satd. Flow (prot) | 0 | 6150 | 0 | 0 | 0 | 0 | 0 | 3277 | 0 | 0 | 5085 | 0 |
| Flt Permitted | | | | | | | | | | | | |
| Satd. Flow (perm) | 0 | 6150 | 0 | 0 | 0 | 0 | 0 | 3277 | 0 | 0 | 5085 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 40 | | | | | | 24 | | | | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 383 | | | 660 | | | 402 | | | 118 | |
| Travel Time (s) | | 8.7 | | | 15.0 | | | 9.1 | | | 2.7 | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 0% | 5% | 1% | 0% | 0% | 0% | 0% | 2% | 1% | 0% | 2% | 0% |
| Parking (#/hr) | | | | | | | | 0 | | | | |
| Adj. Flow (vph) | 1 | 1129 | 132 | 0 | 0 | 0 | 0 | 401 | 88 | 0 | 388 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1262 | 0 | 0 | 0 | 0 | 0 | 489 | 0 | 0 | 388 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.07 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | | | | | 2 | | | 2 | |
| Detector Template | Left | Thru | | | | | | Thru | | | Thru | |
| Leading Detector (ft) | 20 | 100 | | | | | | 100 | | | 100 | |
| Trailing Detector (ft) | 0 | 0 | | | | | | 0 | | | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | | | | | 0 | | | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | | | | | 6 | | | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | | | | | Cl+Ex | | | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | | | | | 0.0 | | | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | | | | | 0.0 | | | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | | | | | 0.0 | | | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | | | | | NA | | | NA | |

| Lane Group | Ø3 |
|---|---|
| Lane Configurations | |
| Traffic Volume (vph) | |
| Future Volume (vph) | |
| Ideal Flow (vphpl) | |
| Storage Length (ft) | |
| Storage Lanes | |
| Taper Length (ft) | |
| Lane Util. Factor | |
| Frt | |
| Flt Protected | |
| Satd. Flow (prot) | |
| Flt Permitted | |
| Satd. Flow (perm) | |
| Right Turn on Red | |
| Satd. Flow (RTOR) | |
| Link Speed (mph) | |
| Link Distance (ft) | |
| Travel Time (s) | |
| Peak Hour Factor | |
| Heavy Vehicles (%) | |
| Parking (#/hr) | |
| Adj. Flow (vph) | |
| Shared Lane Traffic (%) | |
| Lane Group Flow (vph) | |
| Enter Blocked Intersection | |
| Lane Alignment | |
| Median Width(ft) | |
| Link Offset(ft) | |
| Crosswalk Width(ft) | |
| Two way Left Turn Lane | |
| Headway Factor | |
| Turning Speed (mph) | |
| Number of Detectors | |
| Detector Template | |
| Leading Detector (ft) | |
| Trailing Detector (ft) | |
| Detector 1 Position(ft) | |
| Detector 1 Size(ft) | |
| Detector 1 Type | |
| Detector 1 Channel | |
| Detector 1 Extend (s) | |
| Detector 1 Queue (s) | |
| Detector 1 Delay (s) | |
| Detector 2 Position(ft) | |
| Detector 2 Size(ft) | |
| Detector 2 Type | |
| Detector 2 Channel | |
| Detector 2 Extend (s) | |
| Turn Type | |



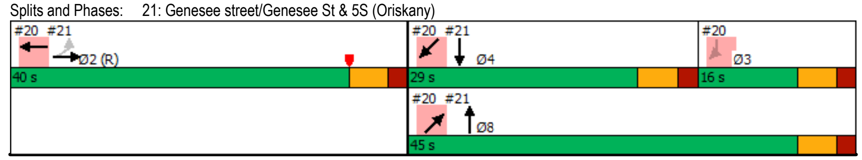


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Protected Phases | | 2 | | | | | | 8 | | | 4 | |
| Permitted Phases | 2 | | | | | | | | | | | |
| Detector Phase | 2 | 2 | | | | | | 8 | | | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 15.0 | 15.0 | | | | | | 6.0 | | | 6.0 | |
| Minimum Split (s) | 46.0 | 46.0 | | | | | | 12.0 | | | 12.0 | |
| Total Split (s) | 40.0 | 40.0 | | | | | | 45.0 | | | 29.0 | |
| Total Split (%) | 47.1% | 47.1% | | | | | | 52.9% | | | 34.1% | |
| Maximum Green (s) | 34.0 | 34.0 | | | | | | 39.0 | | | 23.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | | | | | 4.0 | | | 4.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | | | | | 2.0 | | | 2.0 | |
| Lost Time Adjust (s) | | 0.0 | | | | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 6.0 | | | | | | 6.0 | | | 6.0 | |
| Lead/Lag | | | | | | | | | | | Lead | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 1.0 | 1.0 | | | | | | 2.5 | | | 2.5 | |
| Recall Mode | C-Min | C-Min | | | | | | None | | | None | |
| Walk Time (s) | 7.0 | 7.0 | | | | | | 7.0 | | | 7.0 | |
| Flash Dont Walk (s) | 33.0 | 33.0 | | | | | | 29.0 | | | 29.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | | | | | 0 | | | 0 | |
| Act Effct Green (s) | | 47.1 | | | | | | 25.9 | | | 15.7 | |
| Actuated g/C Ratio | | 0.55 | | | | | | 0.30 | | | 0.18 | |
| v/c Ratio | | 0.37 | | | | | | 0.48 | | | 0.41 | |
| Control Delay | | 20.3 | | | | | | 23.3 | | | 6.4 | |
| Queue Delay | | 0.0 | | | | | | 0.0 | | | 0.2 | |
| Total Delay | | 20.3 | | | | | | 23.3 | | | 6.6 | |
| LOS | | C | | | | | | C | | | A | |
| Approach Delay | | 20.3 | | | | | | 23.3 | | | 6.6 | |
| Approach LOS | | C | | | | | | C | | | A | |

Intersection Summary

Area Type: Other
Cycle Length: 85
Actuated Cycle Length: 85
Offset: 10 (12%), Referenced to phase 2:WBT and 6:, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.54
Intersection Signal Delay: 18.5 Intersection LOS: B
Intersection Capacity Utilization 39.2% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 21: Genesee street/Genesee St & 5S (Oriskany)



| Lane Group | Ø3 |
|---|---|
| Protected Phases | 3 |
| Permitted Phases | |
| Detector Phase | |
| Switch Phase | |
| Minimum Initial (s) | 6.0 |
| Minimum Split (s) | 12.0 |
| Total Split (s) | 16.0 |
| Total Split (%) | 19% |
| Maximum Green (s) | 10.0 |
| Yellow Time (s) | 4.0 |
| All-Red Time (s) | 2.0 |
| Lost Time Adjust (s) | |
| Total Lost Time (s) | |
| Lead/Lag | Lag |
| Lead-Lag Optimize? | |
| Vehicle Extension (s) | 2.5 |
| Recall Mode | None |
| Walk Time (s) | 7.0 |
| Flash Dont Walk (s) | 29.0 |
| Pedestrian Calls (#/hr) | 0 |
| Act Effct Green (s) | |
| Actuated g/C Ratio | |
| v/c Ratio | |
| Control Delay | |
| Queue Delay | |
| Total Delay | |
| LOS | |
| Approach Delay | |
| Approach LOS | |

Intersection Summary





| | → | ↑ | ↓ |
|---|---|---|---|
| Lane Group | EBT | NBT | SBT |
| Lane Group Flow (vph) | 1262 | 489 | 388 |
| v/c Ratio | 0.37 | 0.48 | 0.41 |
| Control Delay | 20.3 | 23.3 | 6.4 |
| Queue Delay | 0.0 | 0.0 | 0.2 |
| Total Delay | 20.3 | 23.3 | 6.6 |
| Queue Length 50th (ft) | 117 | 103 | 8 |
| Queue Length 95th (ft) | 179 | 124 | 12 |
| Internal Link Dist (ft) | 303 | 322 | 38 |
| Turn Bay Length (ft) | | | |
| Base Capacity (vph) | 3424 | 1516 | 1375 |
| Starvation Cap Reductn | 0 | 0 | 332 |
| Spillback Cap Reductn | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.37 | 0.32 | 0.37 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 25 | 82 | 33 | 41 | 194 | 23 | 35 | 394 | 38 | 101 | 346 | 39 |
| Future Volume (vph) | 25 | 82 | 33 | 41 | 194 | 23 | 35 | 394 | 38 | 101 | 346 | 39 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Frt | | 0.968 | | | 0.988 | | | 0.988 | | | 0.988 | |
| Flt Protected | | 0.991 | | | 0.992 | | | 0.996 | | | 0.990 | |
| Satd. Flow (prot) | 0 | 1594 | 0 | 0 | 1624 | 0 | 0 | 3347 | 0 | 0 | 3301 | 0 |
| Flt Permitted | | 0.919 | | | 0.928 | | | 0.885 | | | 0.743 | |
| Satd. Flow (perm) | 0 | 1478 | 0 | 0 | 1519 | 0 | 0 | 2974 | 0 | 0 | 2477 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 22 | | | 7 | | | 16 | | | 19 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 216 | | | 304 | | | 420 | | | 402 | |
| Travel Time (s) | | 4.9 | | | 6.9 | | | 9.5 | | | 9.1 | |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Heavy Vehicles (%) | 0% | 5% | 0% | 5% | 2% | 10% | 0% | 1% | 0% | 1% | 2% | 0% |
| Parking (#/hr) | | 0 | | | 0 | | | 0 | | | 0 | |
| Adj. Flow (vph) | 28 | 93 | 38 | 47 | 220 | 26 | 40 | 448 | 43 | 115 | 393 | 44 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 159 | 0 | 0 | 293 | 0 | 0 | 531 | 0 | 0 | 552 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.14 | 1.00 | 1.00 | 1.14 | 1.00 | 1.00 | 1.07 | 1.00 | 1.00 | 1.07 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | pm+pt | NA | |
| Protected Phases | | 4 | | | 8 | | | 6 | | 5 | 2 | |
| Permitted Phases | 4 | | | 8 | | | 6 | | | 2 | | |
| Detector Phase | 4 | 4 | | 8 | 8 | | 6 | 6 | | 5 | 2 | |



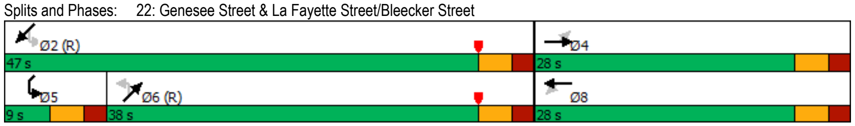


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 5.0 | 4.0 | |
| Minimum Split (s) | 27.0 | 27.0 | | 23.0 | 23.0 | | 23.0 | 23.0 | | 10.0 | 23.0 | |
| Total Split (s) | 28.0 | 28.0 | | 28.0 | 28.0 | | 38.0 | 38.0 | | 9.0 | 47.0 | |
| Total Split (%) | 37.3% | 37.3% | | 37.3% | 37.3% | | 50.7% | 50.7% | | 12.0% | 62.7% | |
| Maximum Green (s) | 23.0 | 23.0 | | 23.0 | 23.0 | | 33.0 | 33.0 | | 4.0 | 42.0 | |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | Lag | Lag | | Lead | | |
| Lead-Lag Optimize? | | | | | | | Yes | Yes | | Yes | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | Max | Max | | Max | Max | | C-Max | C-Max | | None | C-Max | |
| Walk Time (s) | 8.0 | 8.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | | 7.0 | |
| Flash Dont Walk (s) | 14.0 | 14.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | | | 10.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | | 0 | |
| Act Effct Green (s) | | 23.0 | | | 23.0 | | | 42.0 | | | 42.0 | |
| Actuated g/C Ratio | | 0.31 | | | 0.31 | | | 0.56 | | | 0.56 | |
| v/c Ratio | | 0.34 | | | 0.62 | | | 0.32 | | | 0.40 | |
| Control Delay | | 19.7 | | | 28.6 | | | 5.6 | | | 10.0 | |
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 19.7 | | | 28.6 | | | 5.6 | | | 10.0 | |
| LOS | | B | | | C | | | A | | | B | |
| Approach Delay | | 19.7 | | | 28.6 | | | 5.6 | | | 10.0 | |
| Approach LOS | | B | | | C | | | A | | | B | |

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:SWTL and 6:NETL, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.62
Intersection Signal Delay: 13.1 Intersection LOS: B
Intersection Capacity Utilization 57.3% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 22: Genesee Street & La Fayette Street/Bleecker Street



## Queues
### 22: Genesee Street & La Fayette Street/Bleecker Street
02/04/2019

| Lane Group | EBT | WBT | NET | SWT |
|---|---|---|---|---|
| Lane Group Flow (vph) | 159 | 293 | 531 | 552 |
| v/c Ratio | 0.34 | 0.62 | 0.32 | 0.40 |
| Control Delay | 19.7 | 28.6 | 5.6 | 10.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 19.7 | 28.6 | 5.6 | 10.0 |
| Queue Length 50th (ft) | 48 | 113 | 40 | 67 |
| Queue Length 95th (ft) | 95 | 188 | 52 | 97 |
| Internal Link Dist (ft) | 136 | 224 | 340 | 322 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 468 | 470 | 1672 | 1395 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.34 | 0.62 | 0.32 | 0.40 |

Intersection Summary



## Lanes, Volumes, Timings
### 23: Columbia Street/Elizabeth Street & Genesee Street
02/04/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 35 | 113 | 49 | 37 | 145 | 80 | 44 | 348 | 19 | 33 | 354 | 20 |
| Future Volume (vph) | 35 | 113 | 49 | 37 | 145 | 80 | 44 | 348 | 19 | 33 | 354 | 20 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Frt | | 0.967 | | | 0.959 | | | 0.993 | | | 0.993 | |
| Flt Protected | | 0.991 | | | 0.993 | | | 0.995 | | | 0.996 | |
| Satd. Flow (prot) | 0 | 1781 | 0 | 0 | 1767 | 0 | 0 | 3470 | 0 | 0 | 3514 | 0 |
| Flt Permitted | | 0.896 | | | 0.925 | | | 0.849 | | | 0.879 | |
| Satd. Flow (perm) | 0 | 1610 | 0 | 0 | 1646 | 0 | 0 | 2961 | 0 | 0 | 3101 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 22 | | | 35 | | | 7 | | | 8 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 682 | | | 274 | | | 195 | | | 420 | |
| Travel Time (s) | | 15.5 | | | 6.2 | | | 4.4 | | | 9.5 | |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Heavy Vehicles (%) | 3% | 3% | 0% | 13% | 1% | 0% | 0% | 1% | 42% | 6% | 1% | 5% |
| Adj. Flow (vph) | 40 | 130 | 56 | 43 | 167 | 92 | 51 | 400 | 22 | 38 | 407 | 23 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 226 | 0 | 0 | 302 | 0 | 0 | 473 | 0 | 0 | 468 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | pm+pt | NA | | Perm | NA | | pm+pt | NA | |
| Protected Phases | | 4 | | 3 | 8 | | | 6 | | 5 | 2 | |
| Permitted Phases | 4 | | | 8 | | | 6 | | | 2 | | |
| Detector Phase | 4 | 4 | | 3 | 8 | | 6 | 6 | | 5 | 2 | |
| Switch Phase | | | | | | | | | | | | |

## Lanes, Volumes, Timings
## 23: Columbia Street/Elizabeth Street & Genesee Street

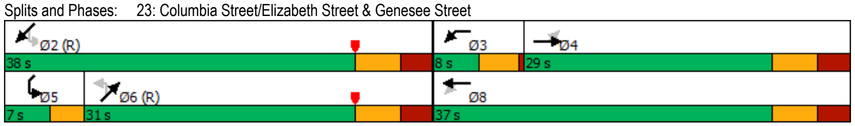
02/04/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Initial (s) | 5.0 | 5.0 | | 4.0 | 1.0 | | 5.0 | 5.0 | | 4.0 | 5.0 | |
| Minimum Split (s) | 23.0 | 23.0 | | 8.0 | 23.0 | | 23.5 | 23.5 | | 7.0 | 23.5 | |
| Total Split (s) | 29.0 | 29.0 | | 8.0 | 37.0 | | 31.0 | 31.0 | | 7.0 | 38.0 | |
| Total Split (%) | 38.7% | 38.7% | | 10.7% | 49.3% | | 41.3% | 41.3% | | 9.3% | 50.7% | |
| Maximum Green (s) | 22.0 | 22.0 | | 4.0 | 30.0 | | 24.0 | 24.0 | | 4.0 | 31.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 3.5 | 4.0 | | 4.0 | 4.0 | | 3.0 | 4.0 | |
| All-Red Time (s) | 3.0 | 3.0 | | 0.5 | 3.0 | | 3.0 | 3.0 | | 0.0 | 3.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 7.0 | | | 7.0 | | | 7.0 | | | 7.0 | |
| Lead/Lag | Lag | Lag | | Lead | | | Lag | Lag | | Lead | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | | | Yes | Yes | | Yes | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | Max | Max | | None | Max | | C-Max | C-Max | | None | C-Max | |
| Walk Time (s) | 5.0 | 5.0 | | | 5.0 | | 5.0 | 5.0 | | | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | | 11.0 | | 11.0 | 11.0 | | | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | | 0 | | 0 | 0 | | | 0 | |
| Act Effct Green (s) | | 30.0 | | | 30.0 | | | 31.0 | | | 31.0 | |
| Actuated g/C Ratio | | 0.40 | | | 0.40 | | | 0.41 | | | 0.41 | |
| v/c Ratio | | 0.34 | | | 0.44 | | | 0.39 | | | 0.36 | |
| Control Delay | | 15.9 | | | 16.9 | | | 15.3 | | | 10.5 | |
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 15.9 | | | 16.9 | | | 15.3 | | | 10.5 | |
| LOS | | B | | | B | | | B | | | B | |
| Approach Delay | | 15.9 | | | 16.9 | | | 15.3 | | | 10.5 | |
| Approach LOS | | B | | | B | | | B | | | B | |

**Intersection Summary**

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 1 (1%), Referenced to phase 2:SWTL and 6:NETL, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.44
Intersection Signal Delay: 14.2 — Intersection LOS: B
Intersection Capacity Utilization 58.7% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 23: Columbia Street/Elizabeth Street & Genesee Street






## Queues
## 23: Columbia Street/Elizabeth Street & Genesee Street

02/04/2019

| Lane Group | EBT | WBT | NET | SWT |
|---|---|---|---|---|
| Lane Group Flow (vph) | 226 | 302 | 473 | 468 |
| v/c Ratio | 0.34 | 0.44 | 0.39 | 0.36 |
| Control Delay | 15.9 | 16.9 | 15.3 | 10.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 15.9 | 16.9 | 15.3 | 10.5 |
| Queue Length 50th (ft) | 63 | 87 | 80 | 34 |
| Queue Length 95th (ft) | 110 | 145 | 114 | 53 |
| Internal Link Dist (ft) | 602 | 194 | 115 | 340 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 657 | 679 | 1227 | 1286 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.34 | 0.44 | 0.39 | 0.36 |

**Intersection Summary**

| Lane Group | EBL | EBR | SEL | SET | SER | NWL | NWT | NWR | SWL | SWR | SWR2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 108 | 14 | 14 | 102 | 0 | 507 | 40 | 0 |
| Future Volume (vph) | 0 | 0 | 0 | 108 | 14 | 14 | 102 | 0 | 507 | 40 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 0 | | 0 | 100 | | 0 | 0 | 0 | |
| Storage Lanes | 0 | 0 | 0 | | 0 | 1 | | 0 | 1 | 2 | |
| Taper Length (ft) | 25 | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | | 0.983 | | | | | | 0.850 | |
| Flt Protected | | | | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 0 | 0 | 3457 | 0 | 1687 | 1845 | 0 | 1736 | 1509 | 1900 |
| Flt Permitted | | | | | | 0.870 | | | 0.950 | | |
| Satd. Flow (perm) | 0 | 0 | 0 | 3457 | 0 | 1545 | 1845 | 0 | 1736 | 1509 | 1900 |
| Right Turn on Red | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | | 15 | | | | | | | |
| Link Speed (mph) | 30 | | | 30 | | | 30 | | 30 | | |
| Link Distance (ft) | 664 | | | 342 | | | 169 | | 360 | | |
| Travel Time (s) | 15.1 | | | 7.8 | | | 3.8 | | 8.2 | | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Heavy Vehicles (%) | 0% | 0% | 0% | 3% | 0% | 7% | 3% | 0% | 4% | 7% | 0% |
| Adj. Flow (vph) | 0 | 0 | 0 | 115 | 15 | 15 | 109 | 0 | 539 | 43 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 0 | 130 | 0 | 15 | 109 | 0 | 539 | 43 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Right | Left | Left | Right | Left | Right | Right |
| Median Width(ft) | 0 | | | 12 | | | 12 | | 12 | | |
| Link Offset(ft) | 0 | | | 0 | | | 0 | | 0 | | |
| Crosswalk Width(ft) | 16 | | | 16 | | | 16 | | 16 | | |
| Two way Left Turn Lane | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | | 9 | 15 | | 9 | 15 | 9 | 9 |
| Number of Detectors | | | | 2 | | 1 | 2 | | 1 | 1 | 1 |
| Detector Template | | | | Thru | | Left | Thru | | Left | Right | Right |
| Leading Detector (ft) | | | | 100 | | 20 | 100 | | 20 | 20 | 20 |
| Trailing Detector (ft) | | | | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Detector 1 Position(ft) | | | | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Detector 1 Size(ft) | | | | 6 | | 20 | 6 | | 20 | 20 | 20 |
| Detector 1 Type | | | | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | |
| Detector 1 Extend (s) | | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(ft) | | | | 94 | | | 94 | | | | |
| Detector 2 Size(ft) | | | | 6 | | | 6 | | | | |
| Detector 2 Type | | | | Cl+Ex | | | Cl+Ex | | | | |
| Detector 2 Channel | | | | | | | | | | | |
| Detector 2 Extend (s) | | | | 0.0 | | | 0.0 | | | | |
| Turn Type | | | | NA | | Perm | NA | | Perm | Prot | Perm |
| Protected Phases | | | | 4 | | | 8 | | | 2 | |



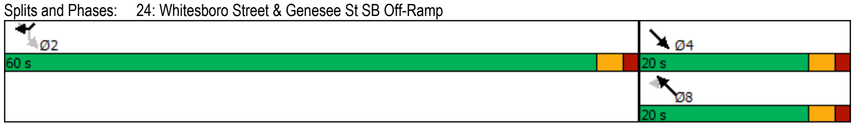


| Lane Group | EBL | EBR | SEL | SET | SER | NWL | NWT | NWR | SWL | SWR | SWR2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Permitted Phases | | | | | | 8 | | | 2 | | 2 |
| Detector Phase | | | | 4 | | 8 | 8 | | 2 | 2 | 2 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | | | | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 |
| Minimum Split (s) | | | | 10.0 | | 10.0 | 10.0 | | 26.0 | 26.0 | 26.0 |
| Total Split (s) | | | | 20.0 | | 20.0 | 20.0 | | 60.0 | 60.0 | 60.0 |
| Total Split (%) | | | | 25.0% | | 25.0% | 25.0% | | 75.0% | 75.0% | 75.0% |
| Maximum Green (s) | | | | 16.0 | | 16.0 | 16.0 | | 56.0 | 56.0 | 56.0 |
| Yellow Time (s) | | | | 2.5 | | 2.5 | 2.5 | | 2.5 | 2.5 | 2.5 |
| All-Red Time (s) | | | | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | 1.5 |
| Lost Time Adjust (s) | | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | | | | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 |
| Lead/Lag | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | |
| Vehicle Extension (s) | | | | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | 2.0 |
| Recall Mode | | | | None | | None | None | | None | None | None |
| Walk Time (s) | | | | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | | | 14.0 | | 14.0 | 14.0 | | 14.0 | 14.0 | 14.0 |
| Pedestrian Calls (#/hr) | | | | 25 | | 25 | 25 | | 25 | 25 | 25 |
| Act Effct Green (s) | | | | 9.2 | | 9.4 | 9.4 | | 18.8 | 18.8 | |
| Actuated g/C Ratio | | | | 0.32 | | 0.32 | 0.32 | | 0.64 | 0.64 | |
| v/c Ratio | | | | 0.12 | | 0.03 | 0.18 | | 0.48 | 0.04 | |
| Control Delay | | | | 9.9 | | 11.6 | 11.8 | | 7.8 | 5.5 | |
| Queue Delay | | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | | | | 9.9 | | 11.6 | 11.8 | | 7.8 | 5.5 | |
| LOS | | | | A | | B | B | | A | A | |
| Approach Delay | | | | 9.9 | | | 11.7 | | 7.6 | | |
| Approach LOS | | | | A | | | B | | A | | |

Intersection Summary

| | |
|---|---|
| Area Type: Other | |
| Cycle Length: 80 | |
| Actuated Cycle Length: 29.2 | |
| Natural Cycle: 40 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.48 | |
| Intersection Signal Delay: 8.6 | Intersection LOS: A |
| Intersection Capacity Utilization 44.9% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 24: Whitesboro Street & Genesee St SB Off-Ramp



## Queues
## 24: Whitesboro Street & Genesee St SB Off-Ramp

02/04/2019

| Lane Group | SET | NWL | NWT | SWL | SWR |
|---|---|---|---|---|---|
| Lane Group Flow (vph) | 130 | 15 | 109 | 539 | 43 |
| v/c Ratio | 0.12 | 0.03 | 0.18 | 0.48 | 0.04 |
| Control Delay | 9.9 | 11.6 | 11.8 | 7.8 | 5.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 9.9 | 11.6 | 11.8 | 7.8 | 5.5 |
| Queue Length 50th (ft) | 6 | 2 | 12 | 44 | 3 |
| Queue Length 95th (ft) | 27 | 13 | 52 | 216 | 20 |
| Internal Link Dist (ft) | 262 | | 89 | 280 | |
| Turn Bay Length (ft) | | 100 | | | |
| Base Capacity (vph) | 2349 | 1047 | 1251 | 1731 | 1505 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.01 | 0.09 | 0.31 | 0.03 |

Intersection Summary



## Lanes, Volumes, Timings
## 25: Blandina Street & Genesee Street

02/04/2019

| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 30 | 5 | 7 | 4 | 353 | 9 | 26 | 420 | 24 |
| Future Volume (vph) | 0 | 0 | 0 | 30 | 5 | 7 | 4 | 353 | 9 | 26 | 420 | 24 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Frt | | | | | 0.977 | | | 0.996 | | | 0.992 | |
| Flt Protected | | | | | 0.966 | | | 0.999 | | | 0.997 | |
| Satd. Flow (prot) | 0 | 0 | 0 | 0 | 1793 | 0 | 0 | 3524 | 0 | 0 | 3508 | 0 |
| Flt Permitted | | | | | 0.966 | | | 0.951 | | | 0.919 | |
| Satd. Flow (perm) | 0 | 0 | 0 | 0 | 1793 | 0 | 0 | 3355 | 0 | 0 | 3233 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | No |
| Satd. Flow (RTOR) | | | | | 8 | | | 5 | | | | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 313 | | | 160 | | | 152 | | | 194 | |
| Travel Time (s) | | 7.1 | | | 3.6 | | | 3.5 | | | 4.4 | |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 2% | 0% | 0% | 2% | 0% |
| Adj. Flow (vph) | 0 | 0 | 0 | 34 | 6 | 8 | 5 | 401 | 10 | 30 | 477 | 27 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 0 | 0 | 48 | 0 | 0 | 416 | 0 | 0 | 534 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | | | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | | | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | | | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | | | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | | | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | | | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | | | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | | | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | | | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | | | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | | | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | | | | 4 | | | 2 | | | 2 | |
| Permitted Phases | | | | 4 | | | 2 | | | 2 | | |
| Detector Phase | | | | 4 | 4 | | 2 | 2 | | 2 | 2 | |
| Switch Phase | | | | | | | | | | | | |

# Lanes, Volumes, Timings
## 25: Blandina Street & Genesee Street
02/04/2019

| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Initial (s) | | | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Minimum Split (s) | | | | 23.0 | 23.0 | | 28.0 | 28.0 | | 28.0 | 28.0 | |
| Total Split (s) | | | | 27.0 | 27.0 | | 48.0 | 48.0 | | 48.0 | 48.0 | |
| Total Split (%) | | | | 36.0% | 36.0% | | 64.0% | 64.0% | | 64.0% | 64.0% | |
| Maximum Green (s) | | | | 22.0 | 22.0 | | 43.0 | 43.0 | | 43.0 | 43.0 | |
| Yellow Time (s) | | | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | | | | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Lost Time Adjust (s) | | | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | | | | 5.0 | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | | | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | | | | None | None | | C-Max | C-Max | | C-Max | C-Max | |
| Walk Time (s) | | | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | | | | 11.0 | 11.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | |
| Pedestrian Calls (#/hr) | | | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | | | | 7.3 | | | 64.0 | | | 64.0 | |
| Actuated g/C Ratio | | | | | 0.10 | | | 0.85 | | | 0.85 | |
| v/c Ratio | | | | | 0.27 | | | 0.15 | | | 0.19 | |
| Control Delay | | | | | 30.5 | | | 2.0 | | | 1.0 | |
| Queue Delay | | | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | | | | 30.5 | | | 2.0 | | | 1.0 | |
| LOS | | | | | C | | | A | | | A | |
| Approach Delay | | | | | 30.5 | | | 2.0 | | | 1.0 | |
| Approach LOS | | | | | C | | | A | | | A | |

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 7.5 (10%), Referenced to phase 2:NESW and 6:, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.27
Intersection Signal Delay: 2.8 Intersection LOS: A
Intersection Capacity Utilization 39.1% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 25: Blandina Street & Genesee Street




# Queues
## 25: Blandina Street & Genesee Street
02/04/2019

| Lane Group | SBT | NET | SWT |
|---|---|---|---|
| Lane Group Flow (vph) | 48 | 416 | 534 |
| v/c Ratio | 0.27 | 0.15 | 0.19 |
| Control Delay | 30.5 | 2.0 | 1.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 |
| Total Delay | 30.5 | 2.0 | 1.0 |
| Queue Length 50th (ft) | 18 | 18 | 11 |
| Queue Length 95th (ft) | 46 | 33 | 17 |
| Internal Link Dist (ft) | 80 | 72 | 114 |
| Turn Bay Length (ft) | | | |
| Base Capacity (vph) | 531 | 2865 | 2760 |
| Starvation Cap Reductn | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.09 | 0.15 | 0.19 |

Intersection Summary

| Lane Group | NBL | NBR | NET | NER | SWL | SWT | Ø4 |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 376 | 24 | 28 | 372 | |
| Future Volume (vph) | 0 | 0 | 376 | 24 | 28 | 372 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 | |
| Frt | | | 0.991 | | | | |
| Flt Protected | | | | | | 0.997 | |
| Satd. Flow (prot) | 0 | 0 | 3328 | 0 | 0 | 3492 | |
| Flt Permitted | | | | | | 0.906 | |
| Satd. Flow (perm) | 0 | 0 | 3328 | 0 | 0 | 3173 | |
| Right Turn on Red | | Yes | | Yes | | | |
| Satd. Flow (RTOR) | | | 17 | | | | |
| Link Speed (mph) | 30 | | 30 | | | 30 | |
| Link Distance (ft) | 399 | | 483 | | | 150 | |
| Travel Time (s) | 9.1 | | 11.0 | | | 3.4 | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | |
| Heavy Vehicles (%) | 0% | 0% | 2% | 4% | 4% | 3% | |
| Parking (#/hr) | | | 0 | | | | |
| Adj. Flow (vph) | 0 | 0 | 396 | 25 | 29 | 392 | |
| Shared Lane Traffic (%) | | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 421 | 0 | 0 | 421 | |
| Enter Blocked Intersection | No | No | No | No | No | No | |
| Lane Alignment | Left | Right | Left | Right | Left | Left | |
| Median Width(ft) | 0 | | 0 | | | 0 | |
| Link Offset(ft) | 0 | | 0 | | | 0 | |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.07 | 1.00 | 1.00 | 1.00 | |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | | |
| Number of Detectors | | | 2 | | 1 | 2 | |
| Detector Template | | | Thru | | Left | Thru | |
| Leading Detector (ft) | | | 100 | | 20 | 100 | |
| Trailing Detector (ft) | | | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | | | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | | | 6 | | 20 | 6 | |
| Detector 1 Type | | | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | |
| Detector 1 Extend (s) | | | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | | | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | | | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | | 6 | | | 6 | |
| Detector 2 Type | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | |
| Detector 2 Extend (s) | | | 0.0 | | | 0.0 | |
| Turn Type | | | NA | | Perm | NA | |
| Protected Phases | | | 6 | | | 2 | 4 |
| Permitted Phases | | | | | 2 | | |
| Detector Phase | | | 6 | | 2 | 2 | |



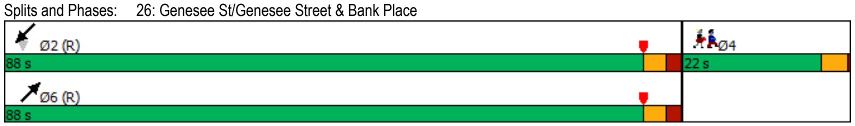


| Lane Group | NBL | NBR | NET | NER | SWL | SWT | Ø4 |
|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | |
| Minimum Initial (s) | | | 4.0 | | 4.0 | 4.0 | 15.0 |
| Minimum Split (s) | | | 23.0 | | 27.0 | 27.0 | 22.0 |
| Total Split (s) | | | 88.0 | | 88.0 | 88.0 | 22.0 |
| Total Split (%) | | | 80.0% | | 80.0% | 80.0% | 20% |
| Maximum Green (s) | | | 83.0 | | 83.0 | 83.0 | 18.0 |
| Yellow Time (s) | | | 3.0 | | 3.0 | 3.0 | 3.5 |
| All-Red Time (s) | | | 2.0 | | 2.0 | 2.0 | 0.5 |
| Lost Time Adjust (s) | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | |
| Lead-Lag Optimize? | | | | | | | |
| Vehicle Extension (s) | | | 3.0 | | 3.0 | 3.0 | 3.0 |
| Recall Mode | | | C-Max | | C-Max | C-Max | None |
| Walk Time (s) | | | 0.0 | | 7.0 | 7.0 | 5.0 |
| Flash Dont Walk (s) | | | 11.0 | | 15.0 | 15.0 | 11.0 |
| Pedestrian Calls (#/hr) | | | 0 | | 0 | 0 | 0 |
| Act Effct Green (s) | | | 110.0 | | | 110.0 | |
| Actuated g/C Ratio | | | 1.00 | | | 1.00 | |
| v/c Ratio | | | 0.13 | | | 0.13 | |
| Control Delay | | | 0.1 | | | 0.1 | |
| Queue Delay | | | 0.0 | | | 0.0 | |
| Total Delay | | | 0.1 | | | 0.1 | |
| LOS | | | A | | | A | |
| Approach Delay | | | 0.1 | | | 0.1 | |
| Approach LOS | | | A | | | A | |

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 12 (11%), Referenced to phase 2:SWTL and 6:NET, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.13
Intersection Signal Delay: 0.1 Intersection LOS: A
Intersection Capacity Utilization 30.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 26: Genesee St/Genesee Street & Bank Place



## 26: Genesee St/Genesee Street & Bank Place



| Lane Group | NET | SWT |
|---|---|---|
| Lane Group Flow (vph) | 421 | 421 |
| v/c Ratio | 0.13 | 0.13 |
| Control Delay | 0.1 | 0.1 |
| Queue Delay | 0.0 | 0.0 |
| Total Delay | 0.1 | 0.1 |
| Queue Length 50th (ft) | 0 | 0 |
| Queue Length 95th (ft) | 0 | 0 |
| Internal Link Dist (ft) | 403 | 70 |
| Turn Bay Length (ft) | | |
| Base Capacity (vph) | 3328 | 3173 |
| Starvation Cap Reductn | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 |
| Storage Cap Reductn | 0 | 0 |
| Reduced v/c Ratio | 0.13 | 0.13 |

Intersection Summary





## 27: Genesee St & Hopper St/Court Street



| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 4 | 259 | 49 | 2 | 385 | 62 | 25 | 372 | 13 | 10 | 354 | 41 |
| Future Volume (vph) | 4 | 259 | 49 | 2 | 385 | 62 | 25 | 372 | 13 | 10 | 354 | 41 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Frt | | 0.976 | | | 0.979 | | | 0.995 | | | 0.985 | |
| Flt Protected | | 0.999 | | | | | | 0.997 | | | 0.999 | |
| Satd. Flow (prot) | 0 | 3491 | 0 | 0 | 3490 | 0 | 0 | 3341 | 0 | 0 | 3292 | 0 |
| Flt Permitted | | 0.950 | | | 0.954 | | | 0.912 | | | 0.942 | |
| Satd. Flow (perm) | 0 | 3320 | 0 | 0 | 3329 | 0 | 0 | 3057 | 0 | 0 | 3104 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | No | | | Yes |
| Satd. Flow (RTOR) | | 36 | | | 30 | | | | | | 20 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 183 | | | 224 | | | 440 | | | 483 | |
| Travel Time (s) | | 4.2 | | | 5.1 | | | 10.0 | | | 11.0 | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Heavy Vehicles (%) | 0% | 1% | 0% | 0% | 1% | 3% | 0% | 2% | 0% | 10% | 2% | 5% |
| Parking (#/hr) | | | | | | | | 0 | | | 0 | |
| Adj. Flow (vph) | 4 | 285 | 54 | 2 | 423 | 68 | 27 | 409 | 14 | 11 | 389 | 45 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 343 | 0 | 0 | 493 | 0 | 0 | 450 | 0 | 0 | 445 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.07 | 1.00 | 1.00 | 1.07 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Detector Phase | 4 | 4 | | 8 | 8 | | 2 | 2 | | 6 | 6 | |

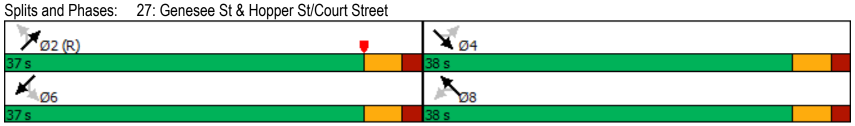
## Lanes, Volumes, Timings
### 27: Genesee St & Hopper St/Court Street

02/04/2019

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Minimum Split (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Total Split (s) | 38.0 | 38.0 | | 38.0 | 38.0 | | 37.0 | 37.0 | | 37.0 | 37.0 | |
| Total Split (%) | 50.7% | 50.7% | | 50.7% | 50.7% | | 49.3% | 49.3% | | 49.3% | 49.3% | |
| Maximum Green (s) | 32.8 | 32.8 | | 32.8 | 32.8 | | 31.8 | 31.8 | | 31.8 | 31.8 | |
| Yellow Time (s) | 3.4 | 3.4 | | 3.4 | 3.4 | | 3.4 | 3.4 | | 3.4 | 3.4 | |
| All-Red Time (s) | 1.8 | 1.8 | | 1.8 | 1.8 | | 1.8 | 1.8 | | 1.8 | 1.8 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.2 | | | 5.2 | | | 5.2 | | | 5.2 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | Max | Max | | Max | Max | | C-Max | C-Max | | Max | Max | |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 15.0 | 15.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 32.8 | | | 32.8 | | | 31.8 | | | 31.8 | |
| Actuated g/C Ratio | | 0.44 | | | 0.44 | | | 0.42 | | | 0.42 | |
| v/c Ratio | | 0.23 | | | 0.33 | | | 0.35 | | | 0.34 | |
| Control Delay | | 12.3 | | | 13.8 | | | 15.5 | | | 14.7 | |
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 12.3 | | | 13.8 | | | 15.5 | | | 14.7 | |
| LOS | | B | | | B | | | B | | | B | |
| Approach Delay | | 12.3 | | | 13.8 | | | 15.5 | | | 14.7 | |
| Approach LOS | | B | | | B | | | B | | | B | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 75 | |
| Actuated Cycle Length: 75 | |
| Offset: 19.8 (26%), Referenced to phase 2:NETL, Start of Yellow | |
| Natural Cycle: 40 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.35 | |
| Intersection Signal Delay: 14.2 | Intersection LOS: B |
| Intersection Capacity Utilization 49.8% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 27: Genesee St & Hopper St/Court Street






## Queues
### 27: Genesee St & Hopper St/Court Street

02/04/2019

| Lane Group | SET | NWT | NET | SWT |
|---|---|---|---|---|
| Lane Group Flow (vph) | 343 | 493 | 450 | 445 |
| v/c Ratio | 0.23 | 0.33 | 0.35 | 0.34 |
| Control Delay | 12.3 | 13.8 | 15.5 | 14.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 12.3 | 13.8 | 15.5 | 14.7 |
| Queue Length 50th (ft) | 44 | 71 | 71 | 66 |
| Queue Length 95th (ft) | 71 | 105 | 106 | 100 |
| Internal Link Dist (ft) | 103 | 144 | 360 | 403 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 1472 | 1472 | 1296 | 1327 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.23 | 0.33 | 0.35 | 0.34 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 172 | 73 | 361 | 218 | 0 | 0 | 0 | 0 | 250 | 75 | 10 |
| Future Volume (vph) | 0 | 172 | 73 | 361 | 218 | 0 | 0 | 0 | 0 | 250 | 75 | 10 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 0.97 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 |
| Frt | | | 0.850 | | | | | | | | | 0.850 |
| Flt Protected | | | | 0.950 | | | | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 3539 | 1583 | 3433 | 1863 | 0 | 0 | 0 | 0 | 3433 | 1863 | 1583 |
| Flt Permitted | | | | 0.950 | | | | | | 0.950 | | |
| Satd. Flow (perm) | 0 | 3539 | 1583 | 3433 | 1863 | 0 | 0 | 0 | 0 | 3433 | 1863 | 1583 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 176 | | | | | | | | | 200 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 242 | | | 186 | | | 372 | | | 252 | |
| Travel Time (s) | | 5.5 | | | 4.2 | | | 8.5 | | | 5.7 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 0 | 187 | 79 | 392 | 237 | 0 | 0 | 0 | 0 | 272 | 82 | 11 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 187 | 79 | 392 | 237 | 0 | 0 | 0 | 0 | 272 | 82 | 11 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 24 | | | 24 | | | 24 | | | 24 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | | 2 | 1 | 1 | 2 | | | | | 1 | 2 | 1 |
| Detector Template | | Thru | Right | Left | Thru | | | | | Left | Thru | Right |
| Leading Detector (ft) | | 100 | 20 | 20 | 100 | | | | | 20 | 100 | 20 |
| Trailing Detector (ft) | | 0 | 0 | 0 | 0 | | | | | 0 | 0 | 0 |
| Detector 1 Position(ft) | | 0 | 0 | 0 | 0 | | | | | 0 | 0 | 0 |
| Detector 1 Size(ft) | | 6 | 20 | 20 | 6 | | | | | 20 | 6 | 20 |
| Detector 1 Type | | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | | | | | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | | 0.0 | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | | 0.0 | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | | 0.0 | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(ft) | | 94 | | | 94 | | | | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | | | 0.0 | |
| Turn Type | | NA | Perm | Prot | NA | | | | | Split | NA | Perm |
| Protected Phases | | 2 | | 1 | 6 9 | | | | | 8 | 8 | |
| Permitted Phases | | | 2 | | | | | | | | | 8 |
| Detector Phase | | 2 | 2 | 1 | 6 9 | | | | | 8 | 8 | 8 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | 10.0 | 10.0 | 4.0 | | | | | | 4.0 | 4.0 | 4.0 |





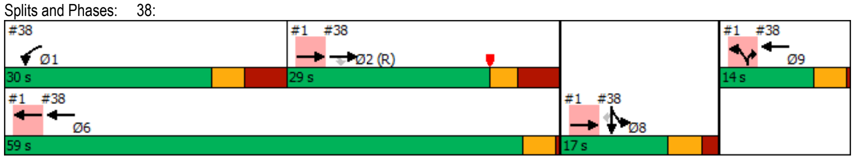
| Lane Group | Ø6 | Ø9 |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | | |
| Future Volume (vph) | | |
| Ideal Flow (vphpl) | | |
| Lane Util. Factor | | |
| Frt | | |
| Flt Protected | | |
| Satd. Flow (prot) | | |
| Flt Permitted | | |
| Satd. Flow (perm) | | |
| Right Turn on Red | | |
| Satd. Flow (RTOR) | | |
| Link Speed (mph) | | |
| Link Distance (ft) | | |
| Travel Time (s) | | |
| Peak Hour Factor | | |
| Adj. Flow (vph) | | |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | | |
| Enter Blocked Intersection | | |
| Lane Alignment | | |
| Median Width(ft) | | |
| Link Offset(ft) | | |
| Crosswalk Width(ft) | | |
| Two way Left Turn Lane | | |
| Headway Factor | | |
| Turning Speed (mph) | | |
| Number of Detectors | | |
| Detector Template | | |
| Leading Detector (ft) | | |
| Trailing Detector (ft) | | |
| Detector 1 Position(ft) | | |
| Detector 1 Size(ft) | | |
| Detector 1 Type | | |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | | |
| Detector 1 Queue (s) | | |
| Detector 1 Delay (s) | | |
| Detector 2 Position(ft) | | |
| Detector 2 Size(ft) | | |
| Detector 2 Type | | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | | |
| Turn Type | | |
| Protected Phases | 6 | 9 |
| Permitted Phases | | |
| Detector Phase | | |
| Switch Phase | | |
| Minimum Initial (s) | 4.0 | 4.0 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Split (s) | | 17.5 | 17.5 | 24.0 | | | | | | 9.5 | 9.5 | 9.5 |
| Total Split (s) | | 29.0 | 29.0 | 30.0 | | | | | | 17.0 | 17.0 | 17.0 |
| Total Split (%) | | 32.2% | 32.2% | 33.3% | | | | | | 18.9% | 18.9% | 18.9% |
| Maximum Green (s) | | 21.5 | 21.5 | 22.0 | | | | | | 11.5 | 11.5 | 11.5 |
| Yellow Time (s) | | 3.0 | 3.0 | 3.5 | | | | | | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | | 4.5 | 4.5 | 4.5 | | | | | | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | | 0.0 | 0.0 | 0.0 | | | | | | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | | 7.5 | 7.5 | 8.0 | | | | | | 5.5 | 5.5 | 5.5 |
| Lead/Lag | | Lag | Lag | Lead | | | | | | | | |
| Lead-Lag Optimize? | | Yes | Yes | Yes | | | | | | | | |
| Vehicle Extension (s) | | 3.0 | 3.0 | 3.0 | | | | | | 3.0 | 3.0 | 3.0 |
| Recall Mode | | C-Max | C-Max | None | | | | | | None | None | None |
| Walk Time (s) | | 5.0 | 5.0 | | | | | | | 5.0 | 5.0 | 5.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | | | | | | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 0 | 0 | | | | | | | 0 | 0 | 0 |
| Act Effct Green (s) | | 28.0 | 28.0 | 15.5 | 69.5 | | | | | 11.0 | 11.0 | 11.0 |
| Actuated g/C Ratio | | 0.31 | 0.31 | 0.17 | 0.77 | | | | | 0.12 | 0.12 | 0.12 |
| v/c Ratio | | 0.17 | 0.13 | 0.66 | 0.16 | | | | | 0.65 | 0.36 | 0.03 |
| Control Delay | | 24.0 | 0.4 | 41.7 | 0.9 | | | | | 45.4 | 40.9 | 0.2 |
| Queue Delay | | 0.0 | 0.0 | 0.8 | 0.5 | | | | | 0.0 | 0.0 | 0.0 |
| Total Delay | | 24.0 | 0.4 | 42.5 | 1.4 | | | | | 45.4 | 40.9 | 0.2 |
| LOS | | C | A | D | A | | | | | D | D | A |
| Approach Delay | | 17.0 | | | 27.0 | | | | | | 43.0 | |
| Approach LOS | | B | | | C | | | | | | D | |

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:EBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.66
Intersection Signal Delay: 29.5 Intersection LOS: C
Intersection Capacity Utilization 42.2% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 38:








| Lane Group | Ø6 | Ø9 |
|---|---|---|
| Minimum Split (s) | 23.5 | 21.5 |
| Total Split (s) | 59.0 | 14.0 |
| Total Split (%) | 66% | 16% |
| Maximum Green (s) | 55.0 | 10.0 |
| Yellow Time (s) | 3.5 | 3.5 |
| All-Red Time (s) | 0.5 | 0.5 |
| Lost Time Adjust (s) | | |
| Total Lost Time (s) | | |
| Lead/Lag | | |
| Lead-Lag Optimize? | | |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | Max | Max |
| Walk Time (s) | 5.0 | |
| Flash Dont Walk (s) | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | |
| Act Effct Green (s) | | |
| Actuated g/C Ratio | | |
| v/c Ratio | | |
| Control Delay | | |
| Queue Delay | | |
| Total Delay | | |
| LOS | | |
| Approach Delay | | |
| Approach LOS | | |

Intersection Summary

| Lane Group | EBT | EBR | WBL | WBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 187 | 79 | 392 | 237 | 272 | 82 | 11 |
| v/c Ratio | 0.17 | 0.13 | 0.66 | 0.16 | 0.65 | 0.36 | 0.03 |
| Control Delay | 24.0 | 0.4 | 41.7 | 0.9 | 45.4 | 40.9 | 0.2 |
| Queue Delay | 0.0 | 0.0 | 0.8 | 0.5 | 0.0 | 0.0 | 0.0 |
| Total Delay | 24.0 | 0.4 | 42.5 | 1.4 | 45.4 | 40.9 | 0.2 |
| Queue Length 50th (ft) | 40 | 0 | 86 | 5 | 76 | 43 | 0 |
| Queue Length 95th (ft) | 71 | 0 | 117 | 7 | 117 | 87 | 0 |
| Internal Link Dist (ft) | 162 | | | 106 | | 172 | |
| Turn Bay Length (ft) | | | | | | | |
| Base Capacity (vph) | 1101 | 613 | 839 | 1438 | 438 | 238 | 376 |
| Starvation Cap Reductn | 0 | 0 | 205 | 819 | 0 | 0 | 0 |
| Spillback Cap Reductn | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.17 | 0.13 | 0.62 | 0.38 | 0.62 | 0.34 | 0.03 |

Intersection Summary

# Future No-Build AM Synchro Reports

| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR | Ø1 | Ø2 | Ø8 |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 316 | 0 | 0 | 260 | 24 | 487 | | | |
| Future Volume (vph) | 316 | 0 | 0 | 260 | 24 | 487 | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | | | |
| Lane Util. Factor | 0.95 | 1.00 | 1.00 | 0.91 | 1.00 | 0.88 | | | |
| Frt | | | | | | 0.850 | | | |
| Flt Protected | | | | | 0.950 | | | | |
| Satd. Flow (prot) | 3539 | 0 | 0 | 5085 | 1770 | 2787 | | | |
| Flt Permitted | | | | | 0.950 | | | | |
| Satd. Flow (perm) | 3539 | 0 | 0 | 5085 | 1770 | 2787 | | | |
| Right Turn on Red | | Yes | | | | Yes | | | |
| Satd. Flow (RTOR) | | | | | | 529 | | | |
| Link Speed (mph) | 30 | | | 30 | 30 | | | | |
| Link Distance (ft) | 188 | | | 369 | 652 | | | | |
| Travel Time (s) | 4.3 | | | 8.4 | 14.8 | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | | |
| Adj. Flow (vph) | 343 | 0 | 0 | 283 | 26 | 529 | | | |
| Shared Lane Traffic (%) | | | | | | | | | |
| Lane Group Flow (vph) | 343 | 0 | 0 | 283 | 26 | 529 | | | |
| Enter Blocked Intersection | No | No | No | No | No | No | | | |
| Lane Alignment | Left | Right | Left | Left | Left | Right | | | |
| Median Width(ft) | 12 | | | 12 | 12 | | | | |
| Link Offset(ft) | 0 | | | 0 | 0 | | | | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | | | | |
| Two way Left Turn Lane | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Turning Speed (mph) | | 9 | 15 | | 15 | 9 | | | |
| Number of Detectors | 2 | | | 2 | 1 | 1 | | | |
| Detector Template | Thru | | | Thru | Left | Right | | | |
| Leading Detector (ft) | 100 | | | 100 | 20 | 20 | | | |
| Trailing Detector (ft) | 0 | | | 0 | 0 | 0 | | | |
| Detector 1 Position(ft) | 0 | | | 0 | 0 | 0 | | | |
| Detector 1 Size(ft) | 6 | | | 6 | 20 | 20 | | | |
| Detector 1 Type | Cl+Ex | | | Cl+Ex | Cl+Ex | Cl+Ex | | | |
| Detector 1 Channel | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | | | 0.0 | 0.0 | 0.0 | | | |
| Detector 1 Queue (s) | 0.0 | | | 0.0 | 0.0 | 0.0 | | | |
| Detector 1 Delay (s) | 0.0 | | | 0.0 | 0.0 | 0.0 | | | |
| Detector 2 Position(ft) | 94 | | | 94 | | | | | |
| Detector 2 Size(ft) | 6 | | | 6 | | | | | |
| Detector 2 Type | Cl+Ex | | | Cl+Ex | | | | | |
| Detector 2 Channel | | | | | | | | | |
| Detector 2 Extend (s) | 0.0 | | | 0.0 | | | | | |
| Turn Type | NA | | | NA | Prot | Prot | | | |
| Protected Phases | 2 8 | | | 6 | 9 | 9 | 1 | 2 | 8 |
| Permitted Phases | | | | | | | | | |
| Detector Phase | 2 8 | | | 6 | 9 | 9 | | | |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | | | | 10.0 | 4.0 | 4.0 | 4.0 | 10.0 | 4.0 |

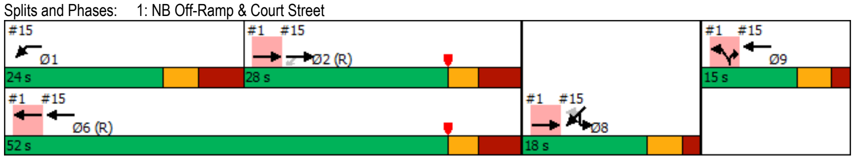




| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR | Ø1 | Ø2 | Ø8 |
|---|---|---|---|---|---|---|---|---|---|
| Minimum Split (s) | | | | 23.5 | 21.5 | 21.5 | 24.0 | 17.5 | 9.5 |
| Total Split (s) | | | | 52.0 | 15.0 | 15.0 | 24.0 | 28.0 | 18.0 |
| Total Split (%) | | | | 61.2% | 17.6% | 17.6% | 28% | 33% | 21% |
| Maximum Green (s) | | | | 44.5 | 9.5 | 9.5 | 16.0 | 20.5 | 12.5 |
| Yellow Time (s) | | | | 3.0 | 3.5 | 3.5 | 3.5 | 3.0 | 3.5 |
| All-Red Time (s) | | | | 4.5 | 2.0 | 2.0 | 4.5 | 4.5 | 2.0 |
| Lost Time Adjust (s) | | | | 0.0 | 0.0 | 0.0 | | | |
| Total Lost Time (s) | | | | 7.5 | 5.5 | 5.5 | | | |
| Lead/Lag | | | | | | | Lead | Lag | |
| Lead-Lag Optimize? | | | | | | | Yes | Yes | |
| Vehicle Extension (s) | | | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | | | | C-Max | None | None | None | C-Max | None |
| Walk Time (s) | | | | 5.0 | | | | 5.0 | 5.0 |
| Flash Dont Walk (s) | | | | 11.0 | | | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | | | 0 | | | | 0 | 0 |
| Act Effct Green (s) | 45.5 | | | 48.9 | 8.6 | 8.6 | | | |
| Actuated g/C Ratio | 0.54 | | | 0.58 | 0.10 | 0.10 | | | |
| v/c Ratio | 0.18 | | | 0.10 | 0.15 | 0.70 | | | |
| Control Delay | 3.3 | | | 8.9 | 36.0 | 9.0 | | | |
| Queue Delay | 0.2 | | | 0.0 | 0.0 | 0.0 | | | |
| Total Delay | 3.5 | | | 8.9 | 36.0 | 9.0 | | | |
| LOS | A | | | A | D | A | | | |
| Approach Delay | 3.5 | | | 8.9 | 10.2 | | | | |
| Approach LOS | A | | | A | B | | | | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 85 | |
| Actuated Cycle Length: 85 | |
| Offset: 44.5 (52%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.70 | |
| Intersection Signal Delay: 8.0 | Intersection LOS: A |
| Intersection Capacity Utilization 36.6% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 1: NB Off-Ramp & Court Street



Queues
1: NB Off-Ramp & Court Street 02/04/2019

| Lane Group | EBT | WBT | NBL | NBR |
|---|---|---|---|---|
| Lane Group Flow (vph) | 343 | 283 | 26 | 529 |
| v/c Ratio | 0.18 | 0.10 | 0.15 | 0.70 |
| Control Delay | 3.3 | 8.9 | 36.0 | 9.0 |
| Queue Delay | 0.2 | 0.0 | 0.0 | 0.0 |
| Total Delay | 3.5 | 8.9 | 36.0 | 9.0 |
| Queue Length 50th (ft) | 2 | 23 | 13 | 0 |
| Queue Length 95th (ft) | 3 | 39 | 37 | 49 |
| Internal Link Dist (ft) | 108 | 289 | 572 | |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 2040 | 2927 | 204 | 790 |
| Starvation Cap Reductn | 1028 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.34 | 0.10 | 0.13 | 0.67 |

Intersection Summary



Lanes, Volumes, Timings
2: State Street/EB Off-Ramp 02/04/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 149 | 7 | 304 | 0 | 0 | 0 | 0 | 177 | 51 | 157 | 26 | 0 |
| Future Volume (vph) | 149 | 7 | 304 | 0 | 0 | 0 | 0 | 177 | 51 | 157 | 26 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 8 | 8 | 8 | 12 | 12 | 12 | 12 | 12 | 12 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.911 | | | | | | | 0.850 | | | |
| Flt Protected | | 0.984 | | | | | | | | | 0.959 | |
| Satd. Flow (prot) | 0 | 1670 | 0 | 0 | 0 | 0 | 0 | 1863 | 1583 | 0 | 1786 | 0 |
| Flt Permitted | | 0.984 | | | | | | | | | 0.633 | |
| Satd. Flow (perm) | 0 | 1670 | 0 | 0 | 0 | 0 | 0 | 1863 | 1583 | 0 | 1179 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 233 | | | | | | | 55 | | | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 161 | | | 214 | | | 285 | | | 268 | |
| Travel Time (s) | | 3.7 | | | 4.9 | | | 6.5 | | | 6.1 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 162 | 8 | 330 | 0 | 0 | 0 | 0 | 192 | 55 | 171 | 28 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 500 | 0 | 0 | 0 | 0 | 0 | 192 | 55 | 0 | 199 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.20 | 1.20 | 1.20 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | | | | | 2 | 1 | 1 | 2 | |
| Detector Template | Left | Thru | | | | | | Thru | Right | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | | | | | 100 | 20 | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | | | | | 0 | 0 | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | | | | | 0 | 0 | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | | | | | 6 | 20 | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | | | | | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | | | | | NA | Perm | Perm | NA | |
| Protected Phases | | 4 | | | | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | | | | | | 2 | 6 | | |
| Detector Phase | 4 | 4 | | | | | | 2 | 2 | 6 | 6 | |
| Switch Phase | | | | | | | | | | | | |

## Lanes, Volumes, Timings
## 2: State Street/EB Off-Ramp

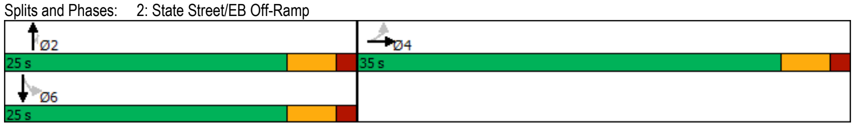
02/04/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Initial (s) | 4.0 | 4.0 | | | | | | 4.0 | 4.0 | 4.0 | 4.0 | |
| Minimum Split (s) | 9.0 | 9.0 | | | | | | 9.0 | 9.0 | 9.0 | 9.0 | |
| Total Split (s) | 35.0 | 35.0 | | | | | | 25.0 | 25.0 | 25.0 | 25.0 | |
| Total Split (%) | 58.3% | 58.3% | | | | | | 41.7% | 41.7% | 41.7% | 41.7% | |
| Maximum Green (s) | 30.0 | 30.0 | | | | | | 20.0 | 20.0 | 20.0 | 20.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | | | | | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.5 | 1.5 | | | | | | 1.5 | 1.5 | 1.5 | 1.5 | |
| Lost Time Adjust (s) | | 0.0 | | | | | | 0.0 | 0.0 | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | | | | 5.0 | 5.0 | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | | | | | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | None | | | | | | Max | Max | Max | Max | |
| Walk Time (s) | 5.0 | 5.0 | | | | | | | | | | |
| Flash Dont Walk (s) | 15.0 | 15.0 | | | | | | | | | | |
| Pedestrian Calls (#/hr) | 0 | 0 | | | | | | | | | | |
| Act Effct Green (s) | | 13.8 | | | | | | 20.4 | 20.4 | | 20.4 | |
| Actuated g/C Ratio | | 0.31 | | | | | | 0.46 | 0.46 | | 0.46 | |
| v/c Ratio | | 0.74 | | | | | | 0.22 | 0.07 | | 0.37 | |
| Control Delay | | 13.7 | | | | | | 10.2 | 4.1 | | 12.6 | |
| Queue Delay | | 0.0 | | | | | | 0.0 | 0.0 | | 0.0 | |
| Total Delay | | 13.7 | | | | | | 10.2 | 4.1 | | 12.6 | |
| LOS | | B | | | | | | B | A | | B | |
| Approach Delay | | 13.7 | | | | | | 8.8 | | | 12.6 | |
| Approach LOS | | B | | | | | | A | | | B | |

**Intersection Summary**

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 44.4
Natural Cycle: 40
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 12.2 — Intersection LOS: B
Intersection Capacity Utilization 59.2% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 2: State Street/EB Off-Ramp






## Queues
## 2: State Street/EB Off-Ramp

02/04/2019

| Lane Group | EBT | NBT | NBR | SBT |
|---|---|---|---|---|
| Lane Group Flow (vph) | 500 | 192 | 55 | 199 |
| v/c Ratio | 0.74 | 0.22 | 0.07 | 0.37 |
| Control Delay | 13.7 | 10.2 | 4.1 | 12.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 13.7 | 10.2 | 4.1 | 12.6 |
| Queue Length 50th (ft) | 53 | 27 | 0 | 30 |
| Queue Length 95th (ft) | 126 | 82 | 17 | 97 |
| Internal Link Dist (ft) | 81 | 205 | | 188 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 1223 | 855 | 756 | 541 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.41 | 0.22 | 0.07 | 0.37 |

**Intersection Summary**

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 26 | 51 | 21 | 43 | 61 | 28 | 5 | 177 | 40 | 89 | 257 | 17 |
| Future Volume (vph) | 26 | 51 | 21 | 43 | 61 | 28 | 5 | 177 | 40 | 89 | 257 | 17 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 123 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.971 | | | 0.972 | | | 0.973 | | | 0.991 | |
| Flt Protected | | 0.987 | | | 0.984 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1785 | 0 | 0 | 1782 | 0 | 1770 | 1812 | 0 | 1770 | 1846 | 0 |
| Flt Permitted | | 0.901 | | | 0.849 | | 0.579 | | | 0.612 | | |
| Satd. Flow (perm) | 0 | 1630 | 0 | 0 | 1537 | 0 | 1079 | 1812 | 0 | 1140 | 1846 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 23 | | | 30 | | | 27 | | | 8 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 187 | | | 741 | | | 332 | | | 285 | |
| Travel Time (s) | | 4.3 | | | 16.8 | | | 7.5 | | | 6.5 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 28 | 55 | 23 | 47 | 66 | 30 | 5 | 192 | 43 | 97 | 279 | 18 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 106 | 0 | 0 | 143 | 0 | 5 | 235 | 0 | 97 | 297 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 4 | | | 2 | | | 2 | |
| Permitted Phases | 4 | | | 4 | | | 2 | | | 2 | | |

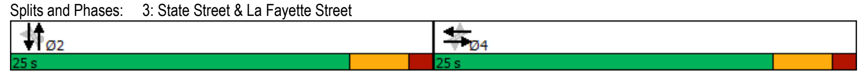




| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Detector Phase | 4 | 4 | | 4 | 4 | | 2 | 2 | | 2 | 2 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Minimum Split (s) | 27.0 | 27.0 | | 27.0 | 27.0 | | 27.0 | 27.0 | | 27.0 | 27.0 | |
| Total Split (s) | 25.0 | 25.0 | | 25.0 | 25.0 | | 25.0 | 25.0 | | 25.0 | 25.0 | |
| Total Split (%) | 50.0% | 50.0% | | 50.0% | 50.0% | | 50.0% | 50.0% | | 50.0% | 50.0% | |
| Maximum Green (s) | 20.0 | 20.0 | | 20.0 | 20.0 | | 20.0 | 20.0 | | 20.0 | 20.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | None | None | | None | None | | Max | Max | | Max | Max | |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 15.0 | 15.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 8.5 | | | 8.5 | | 26.5 | 26.5 | | 26.5 | 26.5 | |
| Actuated g/C Ratio | | 0.20 | | | 0.20 | | 0.63 | 0.63 | | 0.63 | 0.63 | |
| v/c Ratio | | 0.30 | | | 0.43 | | 0.01 | 0.20 | | 0.13 | 0.25 | |
| Control Delay | | 13.3 | | | 15.4 | | 5.4 | 5.4 | | 6.1 | 6.0 | |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | | 13.3 | | | 15.4 | | 5.4 | 5.4 | | 6.1 | 6.0 | |
| LOS | | B | | | B | | A | A | | A | A | |
| Approach Delay | | 13.3 | | | 15.4 | | | 5.4 | | | 6.0 | |
| Approach LOS | | B | | | B | | | A | | | A | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 50 | |
| Actuated Cycle Length: 41.9 | |
| Natural Cycle: 55 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.43 | |
| Intersection Signal Delay: 8.3 | Intersection LOS: A |
| Intersection Capacity Utilization 40.9% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 3: State Street & La Fayette Street



| Lane Group | EBT | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 106 | 143 | 5 | 235 | 97 | 297 |
| v/c Ratio | 0.30 | 0.43 | 0.01 | 0.20 | 0.13 | 0.25 |
| Control Delay | 13.3 | 15.4 | 5.4 | 5.4 | 6.1 | 6.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 13.3 | 15.4 | 5.4 | 5.4 | 6.1 | 6.0 |
| Queue Length 50th (ft) | 16 | 22 | 1 | 20 | 9 | 29 |
| Queue Length 95th (ft) | 43 | 56 | 4 | 58 | 31 | 77 |
| Internal Link Dist (ft) | 107 | 661 | | 252 | | 205 |
| Turn Bay Length (ft) | | | 123 | | | |
| Base Capacity (vph) | 791 | 750 | 682 | 1155 | 720 | 1169 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.13 | 0.19 | 0.01 | 0.20 | 0.13 | 0.25 |

Intersection Summary





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 14 | 66 | 26 | 12 | 32 | 10 | 24 | 194 | 59 | 85 | 193 | 34 |
| Future Volume (vph) | 14 | 66 | 26 | 12 | 32 | 10 | 24 | 194 | 59 | 85 | 193 | 34 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 0 | | 0 | 114 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.967 | | | 0.975 | | | 0.965 | | | 0.978 | |
| Flt Protected | | 0.994 | | | 0.989 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1790 | 0 | 0 | 1796 | 0 | 1770 | 1798 | 0 | 1770 | 1822 | 0 |
| Flt Permitted | | 0.943 | | | 0.911 | | 0.606 | | | 0.590 | | |
| Satd. Flow (perm) | 0 | 1699 | 0 | 0 | 1655 | 0 | 1129 | 1798 | 0 | 1099 | 1822 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 28 | | | 11 | | | 36 | | | 21 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 213 | | | 745 | | | 877 | | | 332 | |
| Travel Time (s) | | 4.8 | | | 16.9 | | | 19.9 | | | 7.5 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 15 | 72 | 28 | 13 | 35 | 11 | 26 | 211 | 64 | 92 | 210 | 37 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 115 | 0 | 0 | 59 | 0 | 26 | 275 | 0 | 92 | 247 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 24 | | | 24 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 4 | | | 2 | | | 2 | |
| Permitted Phases | 4 | | | 4 | | | 2 | | | 2 | | |

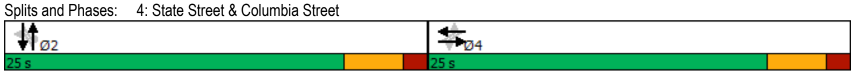
## Lanes, Volumes, Timings
## 4: State Street & Columbia Street

02/04/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Detector Phase | 4 | 4 | | 4 | 4 | | 2 | 2 | | 2 | 2 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Minimum Split (s) | 9.0 | 9.0 | | 9.0 | 9.0 | | 9.0 | 9.0 | | 9.0 | 9.0 | |
| Total Split (s) | 25.0 | 25.0 | | 25.0 | 25.0 | | 25.0 | 25.0 | | 25.0 | 25.0 | |
| Total Split (%) | 50.0% | 50.0% | | 50.0% | 50.0% | | 50.0% | 50.0% | | 50.0% | 50.0% | |
| Maximum Green (s) | 20.0 | 20.0 | | 20.0 | 20.0 | | 20.0 | 20.0 | | 20.0 | 20.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | None | None | | None | None | | Max | Max | | Max | Max | |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 15.0 | 15.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 7.7 | | | 7.7 | | 28.4 | 28.4 | | 28.4 | 28.4 | |
| Actuated g/C Ratio | | 0.18 | | | 0.18 | | 0.66 | 0.66 | | 0.66 | 0.66 | |
| v/c Ratio | | 0.35 | | | 0.19 | | 0.03 | 0.23 | | 0.13 | 0.20 | |
| Control Delay | | 14.7 | | | 13.2 | | 4.8 | 4.7 | | 5.3 | 4.8 | |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | | 14.7 | | | 13.2 | | 4.8 | 4.7 | | 5.3 | 4.8 | |
| LOS | | B | | | B | | A | A | | A | A | |
| Approach Delay | | 14.7 | | | 13.2 | | | 4.7 | | | 4.9 | |
| Approach LOS | | B | | | B | | | A | | | A | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 50 | |
| Actuated Cycle Length: 43 | |
| Natural Cycle: 40 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.35 | |
| Intersection Signal Delay: 6.8 | Intersection LOS: A |
| Intersection Capacity Utilization 37.8% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 4: State Street & Columbia Street






## Queues
## 4: State Street & Columbia Street

02/04/2019

| Lane Group | EBT | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 115 | 59 | 26 | 275 | 92 | 247 |
| v/c Ratio | 0.35 | 0.19 | 0.03 | 0.23 | 0.13 | 0.20 |
| Control Delay | 14.7 | 13.2 | 4.8 | 4.7 | 5.3 | 4.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 14.7 | 13.2 | 4.8 | 4.7 | 5.3 | 4.8 |
| Queue Length 50th (ft) | 17 | 9 | 2 | 22 | 8 | 20 |
| Queue Length 95th (ft) | 46 | 29 | 10 | 57 | 26 | 53 |
| Internal Link Dist (ft) | 133 | 665 | | 797 | | 252 |
| Turn Bay Length (ft) | | | | | 114 | |
| Base Capacity (vph) | 811 | 782 | 746 | 1200 | 726 | 1211 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.14 | 0.08 | 0.03 | 0.23 | 0.13 | 0.20 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 126 | 539 | 142 | 31 | 176 | 55 | 58 | 110 | 21 | 46 | 130 | 34 |
| Future Volume (vph) | 126 | 539 | 142 | 31 | 176 | 55 | 58 | 110 | 21 | 46 | 130 | 34 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 153 | | 0 | 350 | | 0 | 165 | | 0 | 167 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.969 | | | 0.964 | | | 0.976 | | | 0.969 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 3429 | 0 | 1770 | 3412 | 0 | 1770 | 1818 | 0 | 1770 | 1805 | 0 |
| Flt Permitted | 0.596 | | | 0.259 | | | 0.645 | | | 0.666 | | |
| Satd. Flow (perm) | 1110 | 3429 | 0 | 482 | 3412 | 0 | 1201 | 1818 | 0 | 1241 | 1805 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 74 | | | 60 | | | 22 | | | 30 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 369 | | | 715 | | | 284 | | | 877 | |
| Travel Time (s) | | 8.4 | | | 16.3 | | | 6.5 | | | 19.9 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 137 | 586 | 154 | 34 | 191 | 60 | 63 | 120 | 23 | 50 | 141 | 37 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 137 | 740 | 0 | 34 | 251 | 0 | 63 | 143 | 0 | 50 | 178 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | pm+pt | NA | | pm+pt | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | 7 | 4 | | 3 | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Minimum Split (s) | 8.0 | 20.0 | | 8.0 | 20.0 | | 20.0 | 20.0 | | 20.0 | 20.0 | |
| Total Split (s) | 8.0 | 20.0 | | 8.0 | 20.0 | | 20.0 | 20.0 | | 20.0 | 20.0 | |
| Total Split (%) | 16.7% | 41.7% | | 16.7% | 41.7% | | 41.7% | 41.7% | | 41.7% | 41.7% | |
| Maximum Green (s) | 4.0 | 16.0 | | 4.0 | 16.0 | | 16.0 | 16.0 | | 16.0 | 16.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 0.5 | 0.5 | | 0.5 | 0.5 | | 0.5 | 0.5 | | 0.5 | 0.5 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | | | | | | |
| Walk Time (s) | | 5.0 | | | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | | 0 | | | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | 20.0 | 16.0 | | 20.0 | 16.0 | | 16.0 | 16.0 | | 16.0 | 16.0 | |
| Actuated g/C Ratio | 0.42 | 0.33 | | 0.42 | 0.33 | | 0.33 | 0.33 | | 0.33 | 0.33 | |
| v/c Ratio | 0.26 | 0.62 | | 0.11 | 0.21 | | 0.16 | 0.23 | | 0.12 | 0.29 | |



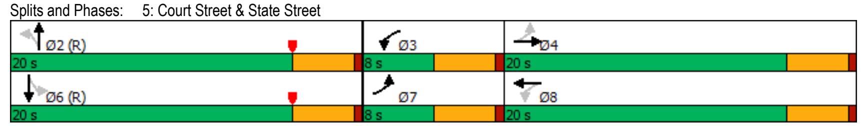


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Control Delay | 8.3 | 14.8 | | 7.2 | 9.2 | | 12.6 | 11.1 | | 12.1 | 11.3 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 8.3 | 14.8 | | 7.2 | 9.2 | | 12.6 | 11.1 | | 12.1 | 11.3 | |
| LOS | A | B | | A | A | | B | B | | B | B | |
| Approach Delay | | 13.7 | | | 9.0 | | | 11.6 | | | 11.5 | |
| Approach LOS | | B | | | A | | | B | | | B | |

Intersection Summary

Area Type: Other
Cycle Length: 48
Actuated Cycle Length: 48
Offset: 16 (33%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 50
Control Type: Pretimed
Maximum v/c Ratio: 0.62
Intersection Signal Delay: 12.3 Intersection LOS: B
Intersection Capacity Utilization 48.3% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 5: Court Street & State Street



## Queues
## 5: Court Street & State Street

02/04/2019

| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 137 | 740 | 34 | 251 | 63 | 143 | 50 | 178 |
| v/c Ratio | 0.26 | 0.62 | 0.11 | 0.21 | 0.16 | 0.23 | 0.12 | 0.29 |
| Control Delay | 8.3 | 14.8 | 7.2 | 9.2 | 12.6 | 11.1 | 12.1 | 11.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 8.3 | 14.8 | 7.2 | 9.2 | 12.6 | 11.1 | 12.1 | 11.3 |
| Queue Length 50th (ft) | 19 | 78 | 4 | 19 | 12 | 24 | 9 | 29 |
| Queue Length 95th (ft) | 41 | 124 | 14 | 39 | 33 | 55 | 28 | 65 |
| Internal Link Dist (ft) | | 289 | | 635 | | 204 | | 797 |
| Turn Bay Length (ft) | 153 | | 350 | | 165 | | 167 | |
| Base Capacity (vph) | 517 | 1192 | 308 | 1177 | 400 | 620 | 413 | 621 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.26 | 0.62 | 0.11 | 0.21 | 0.16 | 0.23 | 0.12 | 0.29 |

Intersection Summary



## Lanes, Volumes, Timings
## 6: Cornelia Street/Cornelia St & 5S

02/04/2019

| Lane Group | EBT | EBR | WBT | WBR | NBL | NBT | NBR | SBT | SBR2 | NER | NER2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 974 | 43 | 943 | 1 | 29 | 17 | 1 | 19 | 85 | 292 | 11 |
| Future Volume (vph) | 974 | 43 | 943 | 1 | 29 | 17 | 1 | 19 | 85 | 292 | 11 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | | 0 | | 0 | 0 | | 0 | | | 0 | |
| Storage Lanes | | 0 | | 0 | 0 | | 0 | | | 1 | |
| Taper Length (ft) | | | | | 25 | | | | | | |
| Lane Util. Factor | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.994 | | | | | 0.997 | | 0.890 | | 0.865 | |
| Flt Protected | | | | | | 0.970 | | | | | |
| Satd. Flow (prot) | 3485 | 0 | 3505 | 0 | 0 | 1837 | 0 | 1587 | 0 | 1596 | 0 |
| Flt Permitted | | | | | | 0.615 | | | | | |
| Satd. Flow (perm) | 3485 | 0 | 3505 | 0 | 0 | 1165 | 0 | 1587 | 0 | 1596 | 0 |
| Right Turn on Red | | | | Yes | | | No | | Yes | | No |
| Satd. Flow (RTOR) | | | | | | | | 94 | | | |
| Link Speed (mph) | 30 | | 30 | | | 30 | | 30 | | | |
| Link Distance (ft) | 284 | | 699 | | | 446 | | 333 | | | |
| Travel Time (s) | 6.5 | | 15.9 | | | 10.1 | | 7.6 | | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 3% | 2% | 3% | 0% | 0% | 0% | 0% | 0% | 8% | 3% | 2% |
| Adj. Flow (vph) | 1082 | 48 | 1048 | 1 | 32 | 19 | 1 | 21 | 94 | 324 | 12 |
| Shared Lane Traffic (%) | | | | | | | | | | | |
| Lane Group Flow (vph) | 1130 | 0 | 1049 | 0 | 0 | 52 | 0 | 115 | 0 | 336 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left | Right | Left | Right | Right | Right |
| Median Width(ft) | 12 | | 12 | | | 0 | | 0 | | | |
| Link Offset(ft) | 0 | | 0 | | | 0 | | 0 | | | |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 | | 16 | | | |
| Two way Left Turn Lane | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | | 9 | | 9 | 15 | | 9 | | 9 | 9 | 9 |
| Number of Detectors | 2 | | 2 | | 1 | 2 | | 2 | | 1 | |
| Detector Template | Thru | | Thru | | Left | Thru | | Thru | | Right | |
| Leading Detector (ft) | 100 | | 100 | | 20 | 100 | | 100 | | 20 | |
| Trailing Detector (ft) | 0 | | 0 | | 0 | 0 | | 0 | | 0 | |
| Detector 1 Position(ft) | 0 | | 0 | | 0 | 0 | | 0 | | 0 | |
| Detector 1 Size(ft) | 6 | | 6 | | 20 | 6 | | 6 | | 20 | |
| Detector 1 Type | Cl+Ex | | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | | 0.0 | | 0.0 | 0.0 | | 0.0 | | 0.0 | |
| Detector 1 Queue (s) | 0.0 | | 0.0 | | 0.0 | 0.0 | | 0.0 | | 0.0 | |
| Detector 1 Delay (s) | 0.0 | | 0.0 | | 0.0 | 0.0 | | 0.0 | | 0.0 | |
| Detector 2 Position(ft) | 94 | | 94 | | | 94 | | 94 | | | |
| Detector 2 Size(ft) | 6 | | 6 | | | 6 | | 6 | | | |
| Detector 2 Type | Cl+Ex | | Cl+Ex | | | Cl+Ex | | Cl+Ex | | | |
| Detector 2 Channel | | | | | | | | | | | |
| Detector 2 Extend (s) | 0.0 | | 0.0 | | | 0.0 | | 0.0 | | | |
| Turn Type | NA | | NA | | Perm | NA | | NA | | Prot | |
| Protected Phases | 2 | | 6 | | | 4 | | 8 | | 1 | |

## Lanes, Volumes, Timings
## 6: Cornelia Street/Cornelia St & 5S

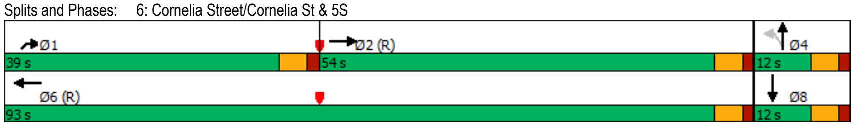
02/04/2019

| Lane Group | EBT | EBR | WBT | WBR | NBL | NBT | NBR | SBT | SBR2 | NER | NER2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Permitted Phases | | | | | 4 | | | | | | |
| Detector Phase | 2 | | 6 | | 4 | 4 | | 8 | | 1 | |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 12.0 | | 12.0 | | 6.0 | 6.0 | | 6.0 | | 6.0 | |
| Minimum Split (s) | 17.0 | | 17.0 | | 11.0 | 11.0 | | 11.0 | | 11.0 | |
| Total Split (s) | 54.0 | | 93.0 | | 12.0 | 12.0 | | 12.0 | | 39.0 | |
| Total Split (%) | 51.4% | | 88.6% | | 11.4% | 11.4% | | 11.4% | | 37.1% | |
| Maximum Green (s) | 49.0 | | 88.0 | | 7.0 | 7.0 | | 7.0 | | 34.0 | |
| Yellow Time (s) | 3.5 | | 3.5 | | 3.5 | 3.5 | | 3.5 | | 3.5 | |
| All-Red Time (s) | 1.5 | | 1.5 | | 1.5 | 1.5 | | 1.5 | | 1.5 | |
| Lost Time Adjust (s) | 0.0 | | 0.0 | | | 0.0 | | 0.0 | | 0.0 | |
| Total Lost Time (s) | 5.0 | | 5.0 | | | 5.0 | | 5.0 | | 5.0 | |
| Lead/Lag | Lag | | | | | | | | | Lead | |
| Lead-Lag Optimize? | | | | | | | | | | | |
| Vehicle Extension (s) | 2.0 | | 2.0 | | 2.0 | 2.0 | | 2.0 | | 2.0 | |
| Recall Mode | C-Min | | C-Min | | None | None | | None | | None | |
| Act Effct Green (s) | 54.8 | | 86.1 | | | 8.9 | | 8.9 | | 26.3 | |
| Actuated g/C Ratio | 0.52 | | 0.82 | | | 0.08 | | 0.08 | | 0.25 | |
| v/c Ratio | 0.62 | | 0.37 | | | 0.53 | | 0.52 | | 0.84 | |
| Control Delay | 21.0 | | 3.5 | | | 66.0 | | 22.7 | | 55.5 | |
| Queue Delay | 0.0 | | 0.0 | | | 0.0 | | 0.0 | | 0.0 | |
| Total Delay | 21.0 | | 3.5 | | | 66.0 | | 22.7 | | 55.5 | |
| LOS | C | | A | | | E | | C | | E | |
| Approach Delay | 21.0 | | 3.5 | | | 66.0 | | 22.7 | | | |
| Approach LOS | C | | A | | | E | | C | | | |

**Intersection Summary**

Area Type: Other
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green, Master Intersection
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 19.4 Intersection LOS: B
Intersection Capacity Utilization 68.8% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 6: Cornelia Street/Cornelia St & 5S






## Queues
## 6: Cornelia Street/Cornelia St & 5S

02/04/2019

| Lane Group | EBT | WBT | NBT | SBT | NER |
|---|---|---|---|---|---|
| Lane Group Flow (vph) | 1130 | 1049 | 52 | 115 | 336 |
| v/c Ratio | 0.62 | 0.37 | 0.53 | 0.52 | 0.84 |
| Control Delay | 21.0 | 3.5 | 66.0 | 22.7 | 55.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 21.0 | 3.5 | 66.0 | 22.7 | 55.5 |
| Queue Length 50th (ft) | 283 | 144 | 33 | 13 | 214 |
| Queue Length 95th (ft) | 383 | 13 | #99 | #72 | 294 |
| Internal Link Dist (ft) | 204 | 619 | 366 | 253 | |
| Turn Bay Length (ft) | | | | | |
| Base Capacity (vph) | 1828 | 2944 | 101 | 224 | 516 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.62 | 0.36 | 0.51 | 0.51 | 0.65 |

**Intersection Summary**

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ✣ | | | ✣ | | | ✣ | | | ✣ | |
| Traffic Volume (vph) | 7 | 150 | 24 | 42 | 116 | 18 | 8 | 23 | 14 | 12 | 47 | 14 |
| Future Volume (vph) | 7 | 150 | 24 | 42 | 116 | 18 | 8 | 23 | 14 | 12 | 47 | 14 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.982 | | | 0.986 | | | 0.959 | | | 0.974 | |
| Flt Protected | | 0.998 | | | 0.988 | | | 0.991 | | | 0.992 | |
| Satd. Flow (prot) | 0 | 1826 | 0 | 0 | 1815 | 0 | 0 | 1770 | 0 | 0 | 1800 | 0 |
| Flt Permitted | | 0.989 | | | 0.901 | | | 0.961 | | | 0.964 | |
| Satd. Flow (perm) | 0 | 1809 | 0 | 0 | 1655 | 0 | 0 | 1717 | 0 | 0 | 1749 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 18 | | | 14 | | | 15 | | | 15 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 741 | | | 632 | | | 331 | | | 446 | |
| Travel Time (s) | | 16.8 | | | 14.4 | | | 7.5 | | | 10.1 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 8 | 163 | 26 | 46 | 126 | 20 | 9 | 25 | 15 | 13 | 51 | 15 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 197 | 0 | 0 | 192 | 0 | 0 | 49 | 0 | 0 | 79 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 4 | | | 2 | | | 2 | |
| Permitted Phases | 4 | | | 4 | | | 2 | | | 2 | | |
| Minimum Split (s) | 21.0 | 21.0 | | 21.0 | 21.0 | | 21.0 | 21.0 | | 21.0 | 21.0 | |
| Total Split (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 25.0 | 25.0 | | 25.0 | 25.0 | |
| Total Split (%) | 54.5% | 54.5% | | 54.5% | 54.5% | | 45.5% | 45.5% | | 45.5% | 45.5% | |
| Maximum Green (s) | 25.0 | 25.0 | | 25.0 | 25.0 | | 20.0 | 20.0 | | 20.0 | 20.0 | |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 25.0 | | | 25.0 | | | 20.0 | | | 20.0 | |
| Actuated g/C Ratio | | 0.45 | | | 0.45 | | | 0.36 | | | 0.36 | |
| v/c Ratio | | 0.24 | | | 0.25 | | | 0.08 | | | 0.12 | |
| Control Delay | | 9.2 | | | 9.7 | | | 9.3 | | | 10.5 | |
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 9.2 | | | 9.7 | | | 9.3 | | | 10.5 | |



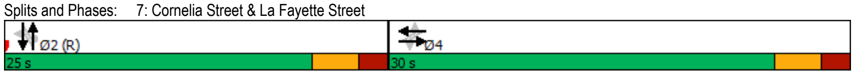


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOS | | A | | | A | | | A | | | B | |
| Approach Delay | | 9.2 | | | 9.7 | | | 9.3 | | | 10.5 | |
| Approach LOS | | A | | | A | | | A | | | B | |

Intersection Summary

Area Type: Other
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.25
Intersection Signal Delay: 9.6 Intersection LOS: A
Intersection Capacity Utilization 37.0% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 7: Cornelia Street & La Fayette Street



## Queues
### 7: Cornelia Street & La Fayette Street

02/04/2019

| Lane Group | EBT | WBT | NBT | SBT |
|---|---|---|---|---|
| Lane Group Flow (vph) | 197 | 192 | 49 | 79 |
| v/c Ratio | 0.24 | 0.25 | 0.08 | 0.12 |
| Control Delay | 9.2 | 9.7 | 9.3 | 10.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 9.2 | 9.7 | 9.3 | 10.5 |
| Queue Length 50th (ft) | 33 | 33 | 7 | 13 |
| Queue Length 95th (ft) | 67 | 67 | 24 | 36 |
| Internal Link Dist (ft) | 661 | 552 | 251 | 366 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 832 | 759 | 633 | 645 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.24 | 0.25 | 0.08 | 0.12 |

Intersection Summary



## Lanes, Volumes, Timings
### 8: Cornelia Street & Columbia Street

02/04/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 5 | 164 | 31 | 14 | 51 | 7 | 5 | 33 | 15 | 8 | 89 | 15 |
| Future Volume (vph) | 5 | 164 | 31 | 14 | 51 | 7 | 5 | 33 | 15 | 8 | 89 | 15 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.979 | | | 0.986 | | | 0.962 | | | 0.982 | |
| Flt Protected | | 0.999 | | | 0.990 | | | 0.996 | | | 0.996 | |
| Satd. Flow (prot) | 0 | 1822 | 0 | 0 | 1818 | 0 | 0 | 1785 | 0 | 0 | 1822 | 0 |
| Flt Permitted | | 0.996 | | | 0.941 | | | 0.984 | | | 0.987 | |
| Satd. Flow (perm) | 0 | 1816 | 0 | 0 | 1728 | 0 | 0 | 1763 | 0 | 0 | 1805 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 19 | | | 8 | | | 16 | | | 16 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 745 | | | 586 | | | 865 | | | 331 | |
| Travel Time (s) | | 16.9 | | | 13.3 | | | 19.7 | | | 7.5 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 5 | 178 | 34 | 15 | 55 | 8 | 5 | 36 | 16 | 9 | 97 | 16 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 217 | 0 | 0 | 78 | 0 | 0 | 57 | 0 | 0 | 122 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 4 | | | 2 | | | 2 | |
| Permitted Phases | 4 | | | 4 | | | 2 | | | 2 | | |
| Minimum Split (s) | 20.5 | 20.5 | | 20.5 | 20.5 | | 20.5 | 20.5 | | 20.5 | 20.5 | |
| Total Split (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 30.0 | 30.0 | | 30.0 | 30.0 | |
| Total Split (%) | 50.0% | 50.0% | | 50.0% | 50.0% | | 50.0% | 50.0% | | 50.0% | 50.0% | |
| Maximum Green (s) | 25.5 | 25.5 | | 25.5 | 25.5 | | 25.5 | 25.5 | | 25.5 | 25.5 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 4.5 | | | 4.5 | | | 4.5 | | | 4.5 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 25.5 | | | 25.5 | | | 25.5 | | | 25.5 | |
| Actuated g/C Ratio | | 0.42 | | | 0.42 | | | 0.42 | | | 0.42 | |
| v/c Ratio | | 0.28 | | | 0.11 | | | 0.08 | | | 0.16 | |
| Control Delay | | 11.4 | | | 10.1 | | | 8.4 | | | 10.0 | |
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 11.4 | | | 10.1 | | | 8.4 | | | 10.0 | |

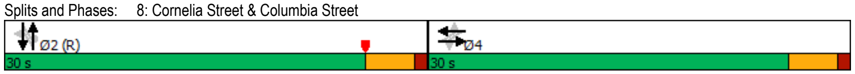
## Lanes, Volumes, Timings
### 8: Cornelia Street & Columbia Street

02/04/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOS | | B | | | B | | | A | | | A | |
| Approach Delay | | 11.4 | | | 10.1 | | | 8.4 | | | 10.0 | |
| Approach LOS | | B | | | B | | | A | | | A | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 15.5 (26%), Referenced to phase 2:NBSB and 6:, Start of Yellow | |
| Natural Cycle: 45 | |
| Control Type: Pretimed | |
| Maximum v/c Ratio: 0.28 | |
| Intersection Signal Delay: 10.4 | Intersection LOS: B |
| Intersection Capacity Utilization 26.1% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 8: Cornelia Street & Columbia Street






## Queues
### 8: Cornelia Street & Columbia Street

02/04/2019

| Lane Group | EBT | WBT | NBT | SBT |
|---|---|---|---|---|
| Lane Group Flow (vph) | 217 | 78 | 57 | 122 |
| v/c Ratio | 0.28 | 0.11 | 0.08 | 0.16 |
| Control Delay | 11.4 | 10.1 | 8.4 | 10.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 11.4 | 10.1 | 8.4 | 10.0 |
| Queue Length 50th (ft) | 44 | 14 | 8 | 22 |
| Queue Length 95th (ft) | 85 | 36 | 26 | 50 |
| Internal Link Dist (ft) | 665 | 506 | 785 | 251 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 782 | 739 | 758 | 776 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.28 | 0.11 | 0.08 | 0.16 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 55 | 519 | 24 | 7 | 225 | 27 | 16 | 10 | 14 | 20 | 24 | 28 |
| Future Volume (vph) | 55 | 519 | 24 | 7 | 225 | 27 | 16 | 10 | 14 | 20 | 24 | 28 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.994 | | | 0.985 | | | 0.913 | | | 0.920 | |
| Flt Protected | | 0.995 | | | 0.999 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 3500 | 0 | 0 | 3483 | 0 | 1770 | 1701 | 0 | 1770 | 1714 | 0 |
| Flt Permitted | | 0.895 | | | 0.938 | | 0.720 | | | 0.740 | | |
| Satd. Flow (perm) | 0 | 3149 | 0 | 0 | 3270 | 0 | 1341 | 1701 | 0 | 1378 | 1714 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 7 | | | 20 | | | 15 | | | 30 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 715 | | | 447 | | | 282 | | | 865 | |
| Travel Time (s) | | 16.3 | | | 10.2 | | | 6.4 | | | 19.7 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 60 | 564 | 26 | 8 | 245 | 29 | 17 | 11 | 15 | 22 | 26 | 30 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 650 | 0 | 0 | 282 | 0 | 17 | 26 | 0 | 22 | 56 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 4 | | | 2 | | | 2 | |
| Permitted Phases | 4 | | | 4 | | | 2 | | | 2 | | |
| Minimum Split (s) | 20.0 | 20.0 | | 20.0 | 20.0 | | 20.5 | 20.5 | | 20.5 | 20.5 | |
| Total Split (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 40.0 | 40.0 | | 40.0 | 40.0 | |
| Total Split (%) | 42.9% | 42.9% | | 42.9% | 42.9% | | 57.1% | 57.1% | | 57.1% | 57.1% | |
| Maximum Green (s) | 26.0 | 26.0 | | 26.0 | 26.0 | | 35.5 | 35.5 | | 35.5 | 35.5 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 0.5 | 0.5 | | 0.5 | 0.5 | | 1.0 | 1.0 | | 1.0 | 1.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | | 4.0 | | | 4.0 | | 4.5 | 4.5 | | 4.5 | 4.5 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 26.0 | | | 26.0 | | 35.5 | 35.5 | | 35.5 | 35.5 | |
| Actuated g/C Ratio | | 0.37 | | | 0.37 | | 0.51 | 0.51 | | 0.51 | 0.51 | |
| v/c Ratio | | 0.55 | | | 0.23 | | 0.03 | 0.03 | | 0.03 | 0.06 | |
| Control Delay | | 19.4 | | | 14.6 | | 8.8 | 5.8 | | 8.9 | 5.4 | |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | | 19.4 | | | 14.6 | | 8.8 | 5.8 | | 8.9 | 5.4 | |



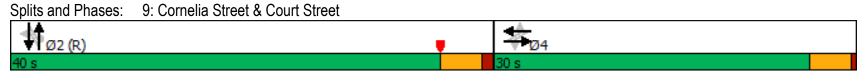


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOS | | B | | | B | | A | A | | A | A | |
| Approach Delay | | 19.4 | | | 14.6 | | | 7.0 | | | 6.4 | |
| Approach LOS | | B | | | B | | | A | | | A | |

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 25.5 (36%), Referenced to phase 2:NBSB and 6:, Start of Yellow
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.55
Intersection Signal Delay: 16.7 Intersection LOS: B
Intersection Capacity Utilization 42.2% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 9: Cornelia Street & Court Street



| Lane Group | EBT | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 650 | 282 | 17 | 26 | 22 | 56 |
| v/c Ratio | 0.55 | 0.23 | 0.03 | 0.03 | 0.03 | 0.06 |
| Control Delay | 19.4 | 14.6 | 8.8 | 5.8 | 8.9 | 5.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 19.4 | 14.6 | 8.8 | 5.8 | 8.9 | 5.4 |
| Queue Length 50th (ft) | 112 | 39 | 3 | 2 | 4 | 5 |
| Queue Length 95th (ft) | 161 | 65 | 12 | 13 | 14 | 21 |
| Internal Link Dist (ft) | 635 | 367 | | 202 | | 785 |
| Turn Bay Length (ft) | | | | | | |
| Base Capacity (vph) | 1174 | 1227 | 680 | 870 | 698 | 884 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.55 | 0.23 | 0.03 | 0.03 | 0.03 | 0.06 |

Intersection Summary





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 65 | 907 | 49 | 136 | 941 | 0 | 34 | 5 | 14 | 32 | 50 | 17 |
| Future Volume (vph) | 65 | 907 | 49 | 136 | 941 | 0 | 34 | 5 | 14 | 32 | 50 | 17 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 257 | | 0 | 253 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.992 | | | | | | 0.891 | | | 0.962 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 3511 | 0 | 1770 | 3539 | 0 | 1770 | 1660 | 0 | 1770 | 1792 | 0 |
| Flt Permitted | 0.226 | | | 0.217 | | | 0.418 | | | 0.743 | | |
| Satd. Flow (perm) | 421 | 3511 | 0 | 404 | 3539 | 0 | 779 | 1660 | 0 | 1384 | 1792 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 9 | | | | | | 16 | | | 13 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 699 | | | 306 | | | 481 | | | 508 | |
| Travel Time (s) | | 15.9 | | | 7.0 | | | 10.9 | | | 11.5 | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Adj. Flow (vph) | 72 | 1008 | 54 | 151 | 1046 | 0 | 38 | 6 | 16 | 36 | 56 | 19 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 72 | 1062 | 0 | 151 | 1046 | 0 | 38 | 22 | 0 | 36 | 75 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | | 4 | |
| Permitted Phases | 2 | | | 6 | | | 8 | | | 4 | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Detector Phase | 5 | 2 | | 1 | 6 | | 3 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 15.0 | | 6.0 | 15.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 11.0 | 20.0 | | 11.0 | 20.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Total Split (s) | 11.0 | 66.0 | | 15.0 | 70.0 | | 11.0 | 24.0 | | 13.0 | 13.0 | |
| Total Split (%) | 10.5% | 62.9% | | 14.3% | 66.7% | | 10.5% | 22.9% | | 12.4% | 12.4% | |
| Maximum Green (s) | 6.0 | 61.0 | | 10.0 | 65.0 | | 6.0 | 19.0 | | 8.0 | 8.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Lead/Lag | Lag | Lead | | Lag | Lead | | Lead | | | Lag | Lag | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 2.0 | 2.0 | | 3.0 | 3.0 | | 3.0 | 2.0 | | 2.0 | 2.0 | |
| Recall Mode | None | C-Min | | None | C-Min | | None | None | | None | None | |
| Act Effct Green (s) | 74.4 | 68.4 | | 79.1 | 73.5 | | 15.9 | 15.9 | | 8.4 | 8.4 | |
| Actuated g/C Ratio | 0.71 | 0.65 | | 0.75 | 0.70 | | 0.15 | 0.15 | | 0.08 | 0.08 | |
| v/c Ratio | 0.19 | 0.46 | | 0.37 | 0.42 | | 0.21 | 0.08 | | 0.33 | 0.49 | |
| Control Delay | 2.2 | 5.5 | | 12.6 | 14.9 | | 37.0 | 18.1 | | 52.7 | 48.5 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 2.2 | 5.5 | | 12.6 | 14.9 | | 37.0 | 18.1 | | 52.7 | 48.5 | |
| LOS | A | A | | B | B | | D | B | | D | D | |
| Approach Delay | | 5.3 | | | 14.6 | | | 30.1 | | | 49.8 | |
| Approach LOS | | A | | | B | | | C | | | D | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 105 | |
| Actuated Cycle Length: 105 | |
| Offset: 10 (10%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.49 | |
| Intersection Signal Delay: 12.3 | Intersection LOS: B |
| Intersection Capacity Utilization 55.2% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 10: Broadway & 5S






| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 72 | 1062 | 151 | 1046 | 38 | 22 | 36 | 75 |
| v/c Ratio | 0.19 | 0.46 | 0.37 | 0.42 | 0.21 | 0.08 | 0.33 | 0.49 |
| Control Delay | 2.2 | 5.5 | 12.6 | 14.9 | 37.0 | 18.1 | 52.7 | 48.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 2.2 | 5.5 | 12.6 | 14.9 | 37.0 | 18.1 | 52.7 | 48.5 |
| Queue Length 50th (ft) | 2 | 79 | 26 | 172 | 21 | 3 | 23 | 41 |
| Queue Length 95th (ft) | m8 | 144 | 89 | 367 | 47 | 23 | 55 | 84 |
| Internal Link Dist (ft) | | 619 | | 226 | | 401 | | 428 |
| Turn Bay Length (ft) | 257 | | 253 | | | | | |
| Base Capacity (vph) | 375 | 2329 | 442 | 2544 | 184 | 345 | 119 | 166 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.19 | 0.46 | 0.34 | 0.41 | 0.21 | 0.06 | 0.30 | 0.45 |

| Intersection Summary |
|---|
| m Volume for 95th percentile queue is metered by upstream signal. |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 15 | 111 | 21 | 33 | 136 | 11 | 11 | 53 | 16 | 10 | 56 | 26 |
| Future Volume (vph) | 15 | 111 | 21 | 33 | 136 | 11 | 11 | 53 | 16 | 10 | 56 | 26 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.981 | | | 0.992 | | | 0.974 | | | 0.962 | |
| Flt Protected | | 0.995 | | | 0.991 | | | 0.993 | | | 0.995 | |
| Satd. Flow (prot) | 0 | 1818 | 0 | 0 | 1831 | 0 | 0 | 1802 | 0 | 0 | 1783 | 0 |
| Flt Permitted | | 0.970 | | | 0.937 | | | 0.967 | | | 0.975 | |
| Satd. Flow (perm) | 0 | 1773 | 0 | 0 | 1731 | 0 | 0 | 1754 | 0 | 0 | 1747 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 20 | | | 8 | | | 17 | | | 28 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 632 | | | 310 | | | 359 | | | 481 | |
| Travel Time (s) | | 14.4 | | | 7.0 | | | 8.2 | | | 10.9 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 16 | 121 | 23 | 36 | 148 | 12 | 12 | 58 | 17 | 11 | 61 | 28 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 160 | 0 | 0 | 196 | 0 | 0 | 87 | 0 | 0 | 100 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 4 | | | 2 | | | 2 | |
| Permitted Phases | 4 | | | 4 | | | 2 | | | 2 | | |
| Minimum Split (s) | 20.5 | 20.5 | | 20.5 | 20.5 | | 20.5 | 20.5 | | 20.5 | 20.5 | |
| Total Split (s) | 35.0 | 35.0 | | 35.0 | 35.0 | | 25.0 | 25.0 | | 25.0 | 25.0 | |
| Total Split (%) | 58.3% | 58.3% | | 58.3% | 58.3% | | 41.7% | 41.7% | | 41.7% | 41.7% | |
| Maximum Green (s) | 30.5 | 30.5 | | 30.5 | 30.5 | | 20.5 | 20.5 | | 20.5 | 20.5 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 0.5 | 0.5 | | 0.5 | 0.5 | | 0.5 | 0.5 | | 0.5 | 0.5 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 4.5 | | | 4.5 | | | 4.5 | | | 4.5 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 30.5 | | | 30.5 | | | 20.5 | | | 20.5 | |
| Actuated g/C Ratio | | 0.51 | | | 0.51 | | | 0.34 | | | 0.34 | |
| v/c Ratio | | 0.18 | | | 0.22 | | | 0.14 | | | 0.16 | |
| Control Delay | | 7.6 | | | 8.7 | | | 12.3 | | | 11.4 | |
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 7.6 | | | 8.7 | | | 12.3 | | | 11.4 | |



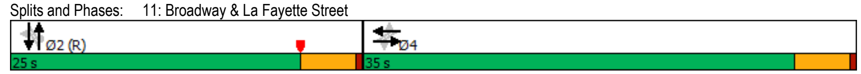


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOS | | A | | | A | | | B | | | B | |
| Approach Delay | | 7.6 | | | 8.7 | | | 12.3 | | | 11.4 | |
| Approach LOS | | A | | | A | | | B | | | B | |

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 20.5 (34%), Referenced to phase 2:NBSB and 6:, Start of Yellow
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.22
Intersection Signal Delay: 9.4 Intersection LOS: A
Intersection Capacity Utilization 29.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 11: Broadway & La Fayette Street



| Lane Group | EBT | WBT | NBT | SBT |
|---|---|---|---|---|
| Lane Group Flow (vph) | 160 | 196 | 87 | 100 |
| v/c Ratio | 0.18 | 0.22 | 0.14 | 0.16 |
| Control Delay | 7.6 | 8.7 | 12.3 | 11.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 7.6 | 8.7 | 12.3 | 11.4 |
| Queue Length 50th (ft) | 25 | 35 | 17 | 18 |
| Queue Length 95th (ft) | 52 | 66 | 43 | 46 |
| Internal Link Dist (ft) | 552 | 230 | 279 | 401 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 911 | 883 | 610 | 615 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.18 | 0.22 | 0.14 | 0.16 |

Intersection Summary





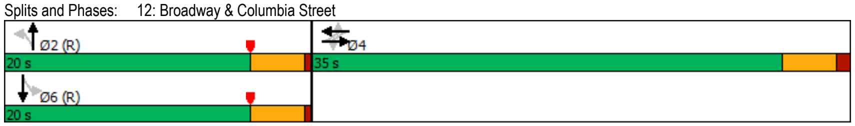
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 15 | 152 | 19 | 17 | 52 | 12 | 7 | 54 | 50 | 14 | 81 | 15 |
| Future Volume (vph) | 15 | 152 | 19 | 17 | 52 | 12 | 7 | 54 | 50 | 14 | 81 | 15 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.986 | | | 0.980 | | | 0.940 | | | 0.982 | |
| Flt Protected | | 0.996 | | | 0.990 | | | 0.997 | | | 0.994 | |
| Satd. Flow (prot) | 0 | 1829 | 0 | 0 | 1807 | 0 | 0 | 1746 | 0 | 0 | 1818 | 0 |
| Flt Permitted | | 0.983 | | | 0.942 | | | 0.984 | | | 0.964 | |
| Satd. Flow (perm) | 0 | 1805 | 0 | 0 | 1720 | 0 | 0 | 1723 | 0 | 0 | 1763 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 17 | | | 13 | | | 54 | | | 14 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 586 | | | 664 | | | 963 | | | 359 | |
| Travel Time (s) | | 13.3 | | | 15.1 | | | 21.9 | | | 8.2 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 16 | 165 | 21 | 18 | 57 | 13 | 8 | 59 | 54 | 15 | 88 | 16 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 202 | 0 | 0 | 88 | 0 | 0 | 121 | 0 | 0 | 119 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 4 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 4 | | | 2 | | | 6 | | |
| Minimum Split (s) | 20.5 | 20.5 | | 20.5 | 20.5 | | 20.0 | 20.0 | | 20.0 | 20.0 | |
| Total Split (s) | 35.0 | 35.0 | | 35.0 | 35.0 | | 20.0 | 20.0 | | 20.0 | 20.0 | |
| Total Split (%) | 63.6% | 63.6% | | 63.6% | 63.6% | | 36.4% | 36.4% | | 36.4% | 36.4% | |
| Maximum Green (s) | 30.5 | 30.5 | | 30.5 | 30.5 | | 16.0 | 16.0 | | 16.0 | 16.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 0.5 | 0.5 | | 0.5 | 0.5 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 4.5 | | | 4.5 | | | 4.0 | | | 4.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 30.5 | | | 30.5 | | | 16.0 | | | 16.0 | |
| Actuated g/C Ratio | | 0.55 | | | 0.55 | | | 0.29 | | | 0.29 | |
| v/c Ratio | | 0.20 | | | 0.09 | | | 0.22 | | | 0.23 | |
| Control Delay | | 6.2 | | | 9.3 | | | 9.6 | | | 14.6 | |
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 6.2 | | | 9.3 | | | 9.6 | | | 14.6 | |

Lanes, Volumes, Timings
12: Broadway & Columbia Street 02/04/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOS | | A | | | A | | | A | | | B | |
| Approach Delay | | 6.2 | | | 9.3 | | | 9.6 | | | 14.6 | |
| Approach LOS | | A | | | A | | | A | | | B | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 55 | |
| Actuated Cycle Length: 55 | |
| Offset: 1 (2%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow | |
| Natural Cycle: 45 | |
| Control Type: Pretimed | |
| Maximum v/c Ratio: 0.23 | |
| Intersection Signal Delay: 9.4 | Intersection LOS: A |
| Intersection Capacity Utilization 27.8% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 12: Broadway & Columbia Street






Queues
12: Broadway & Columbia Street 02/04/2019

| Lane Group | EBT | WBT | NBT | SBT |
|---|---|---|---|---|
| Lane Group Flow (vph) | 202 | 88 | 121 | 119 |
| v/c Ratio | 0.20 | 0.09 | 0.22 | 0.23 |
| Control Delay | 6.2 | 9.3 | 9.6 | 14.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 6.2 | 9.3 | 9.6 | 14.6 |
| Queue Length 50th (ft) | 27 | 22 | 17 | 26 |
| Queue Length 95th (ft) | 53 | 48 | 44 | 59 |
| Internal Link Dist (ft) | 506 | 584 | 883 | 279 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 1008 | 959 | 539 | 522 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.20 | 0.09 | 0.22 | 0.23 |

Intersection Summary

| Lane Group | SBL | SBR | SEL | SET | NWT | NWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 16 | 41 | 138 | 405 | 223 | 30 |
| Future Volume (vph) | 16 | 41 | 138 | 405 | 223 | 30 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 |
| Frt | 0.902 | | | | 0.982 | |
| Flt Protected | 0.986 | | | 0.987 | | |
| Satd. Flow (prot) | 1657 | 0 | 0 | 3493 | 3476 | 0 |
| Flt Permitted | 0.986 | | | 0.987 | | |
| Satd. Flow (perm) | 1657 | 0 | 0 | 3493 | 3476 | 0 |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 963 | | | 447 | 202 | |
| Travel Time (s) | 21.9 | | | 10.2 | 4.6 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 17 | 45 | 150 | 440 | 242 | 33 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 62 | 0 | 0 | 590 | 275 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 12 | | | 0 | 0 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Sign Control | Stop | | | Free | Free | |

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 35.7% ICU Level of Service A
Analysis Period (min) 15





| Intersection | |
|---|---|
| Int Delay, s/veh | 2.3 |

| Movement | SBL | SBR | SEL | SET | NWT | NWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 16 | 41 | 138 | 405 | 223 | 30 |
| Future Vol, veh/h | 16 | 41 | 138 | 405 | 223 | 30 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 17 | 45 | 150 | 440 | 242 | 33 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 779 | 138 | 275 | 0 | - | 0 |
| Stage 1 | 259 | - | - | - | - | - |
| Stage 2 | 520 | - | - | - | - | - |
| Critical Hdwy | 6.84 | 6.94 | 4.14 | - | - | - |
| Critical Hdwy Stg 1 | 5.84 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.84 | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 3.32 | 2.22 | - | - | - |
| Pot Cap-1 Maneuver | 333 | 885 | 1285 | - | - | - |
| Stage 1 | 761 | - | - | - | - | - |
| Stage 2 | 561 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 281 | 885 | 1285 | - | - | - |
| Mov Cap-2 Maneuver | 281 | - | - | - | - | - |
| Stage 1 | 643 | - | - | - | - | - |
| Stage 2 | 561 | - | - | - | - | - |

| Approach | SB | SE | NW |
|---|---|---|---|
| HCM Control Delay, s | 12.3 | 2.4 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NWT | NWR | SEL | SET | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 1285 | - | 552 |
| HCM Lane V/C Ratio | - | - | 0.117 | - | 0.112 |
| HCM Control Delay (s) | - | - | 8.2 | 0.4 | 12.3 |
| HCM Lane LOS | - | - | A | A | B |
| HCM 95th %tile Q(veh) | - | - | 0.4 | - | 0.4 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ↑↱ | | | ↑↱ | | | | ↱ | | | ↱ |
| Traffic Volume (vph) | 0 | 930 | 7 | 0 | 1071 | 3 | 0 | 0 | 9 | 0 | 0 | 8 |
| Future Volume (vph) | 0 | 930 | 7 | 0 | 1071 | 3 | 0 | 0 | 9 | 0 | 0 | 8 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 100 | | 0 | 100 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 1 | 0 | | 0 | 0 | | 1 | 0 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.999 | | | | | | | 0.865 | | | 0.865 |
| Flt Protected | | | | | | | | | | | | |
| Satd. Flow (prot) | 0 | 3536 | 0 | 0 | 3539 | 0 | 0 | 0 | 1611 | 0 | 0 | 1611 |
| Flt Permitted | | | | | | | | | | | | |
| Satd. Flow (perm) | 0 | 3536 | 0 | 0 | 3539 | 0 | 0 | 0 | 1611 | 0 | 0 | 1611 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 306 | | | 333 | | | 450 | | | 317 | |
| Travel Time (s) | | 7.0 | | | 7.6 | | | 10.2 | | | 7.2 | |
| Confl. Peds. (#/hr) | | | | | | | 15 | | | | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Adj. Flow (vph) | 0 | 1033 | 8 | 0 | 1190 | 3 | 0 | 0 | 10 | 0 | 0 | 9 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1041 | 0 | 0 | 1193 | 0 | 0 | 0 | 10 | 0 | 0 | 9 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Sign Control | | Free | | | Free | | | Yield | | | Yield | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |
| Intersection Capacity Utilization 39.7% | ICU Level of Service A |
| Analysis Period (min) 15 | |





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ↑↑ | ↱ | ↰↰ | ↑ | | | | | ↰↰ | ↑ | ↱ |
| Traffic Volume (vph) | 0 | 212 | 69 | 172 | 112 | 0 | 0 | 0 | 0 | 104 | 26 | 10 |
| Future Volume (vph) | 0 | 212 | 69 | 172 | 112 | 0 | 0 | 0 | 0 | 104 | 26 | 10 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 0.97 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 |
| Frt | | | 0.850 | | | | | | | | | 0.850 |
| Flt Protected | | | | 0.950 | | | | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 3539 | 1583 | 3433 | 1863 | 0 | 0 | 0 | 0 | 3433 | 1863 | 1583 |
| Flt Permitted | | | | 0.950 | | | | | | 0.950 | | |
| Satd. Flow (perm) | 0 | 3539 | 1583 | 3433 | 1863 | 0 | 0 | 0 | 0 | 3433 | 1863 | 1583 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 205 | | | | | | | | | 231 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 205 | | | 188 | | | 407 | | | 289 | |
| Travel Time (s) | | 4.7 | | | 4.3 | | | 9.3 | | | 6.6 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 0 | 230 | 75 | 187 | 122 | 0 | 0 | 0 | 0 | 113 | 28 | 11 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 230 | 75 | 187 | 122 | 0 | 0 | 0 | 0 | 113 | 28 | 11 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 24 | | | 24 | | | 24 | | | 24 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | | 2 | 1 | 1 | 2 | | | | | 1 | 2 | 1 |
| Detector Template | | Thru | Right | Left | Thru | | | | | Left | Thru | Right |
| Leading Detector (ft) | | 100 | 20 | 20 | 100 | | | | | 20 | 100 | 20 |
| Trailing Detector (ft) | | 0 | 0 | 0 | 0 | | | | | 0 | 0 | 0 |
| Detector 1 Position(ft) | | 0 | 0 | 0 | 0 | | | | | 0 | 0 | 0 |
| Detector 1 Size(ft) | | 6 | 20 | 20 | 6 | | | | | 20 | 6 | 20 |
| Detector 1 Type | | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | | | | | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | | 0.0 | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | | 0.0 | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | | 0.0 | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(ft) | | 94 | | | 94 | | | | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | | | 0.0 | |
| Turn Type | | NA | Perm | Prot | NA | | | | | Split | NA | Perm |
| Protected Phases | | 2 | | 1 | 6 9 | | | | | 8 | 8 | |
| Permitted Phases | | | 2 | | | | | | | | | 8 |
| Detector Phase | | 2 | 2 | 1 | 6 9 | | | | | 8 | 8 | 8 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | 10.0 | 10.0 | 4.0 | | | | | | 4.0 | 4.0 | 4.0 |

| Lane Group | Ø6 | Ø9 |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | | |
| Future Volume (vph) | | |
| Ideal Flow (vphpl) | | |
| Lane Util. Factor | | |
| Frt | | |
| Flt Protected | | |
| Satd. Flow (prot) | | |
| Flt Permitted | | |
| Satd. Flow (perm) | | |
| Right Turn on Red | | |
| Satd. Flow (RTOR) | | |
| Link Speed (mph) | | |
| Link Distance (ft) | | |
| Travel Time (s) | | |
| Peak Hour Factor | | |
| Adj. Flow (vph) | | |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | | |
| Enter Blocked Intersection | | |
| Lane Alignment | | |
| Median Width(ft) | | |
| Link Offset(ft) | | |
| Crosswalk Width(ft) | | |
| Two way Left Turn Lane | | |
| Headway Factor | | |
| Turning Speed (mph) | | |
| Number of Detectors | | |
| Detector Template | | |
| Leading Detector (ft) | | |
| Trailing Detector (ft) | | |
| Detector 1 Position(ft) | | |
| Detector 1 Size(ft) | | |
| Detector 1 Type | | |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | | |
| Detector 1 Queue (s) | | |
| Detector 1 Delay (s) | | |
| Detector 2 Position(ft) | | |
| Detector 2 Size(ft) | | |
| Detector 2 Type | | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | | |
| Turn Type | | |
| Protected Phases | 6 | 9 |
| Permitted Phases | | |
| Detector Phase | | |
| Switch Phase | | |
| Minimum Initial (s) | 10.0 | 4.0 |

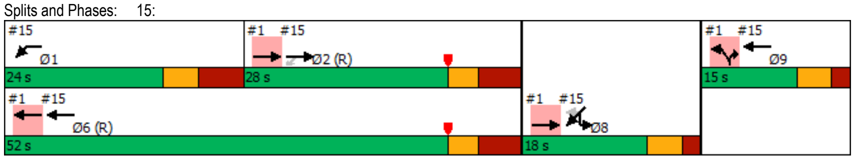




| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Split (s) | | 17.5 | 17.5 | 24.0 | | | | | | 9.5 | 9.5 | 9.5 |
| Total Split (s) | | 28.0 | 28.0 | 24.0 | | | | | | 18.0 | 18.0 | 18.0 |
| Total Split (%) | | 32.9% | 32.9% | 28.2% | | | | | | 21.2% | 21.2% | 21.2% |
| Maximum Green (s) | | 20.5 | 20.5 | 16.0 | | | | | | 12.5 | 12.5 | 12.5 |
| Yellow Time (s) | | 3.0 | 3.0 | 3.5 | | | | | | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | | 4.5 | 4.5 | 4.5 | | | | | | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | | 0.0 | 0.0 | 0.0 | | | | | | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | | 7.5 | 7.5 | 8.0 | | | | | | 5.5 | 5.5 | 5.5 |
| Lead/Lag | | Lag | Lag | Lead | | | | | | | | |
| Lead-Lag Optimize? | | Yes | Yes | Yes | | | | | | | | |
| Vehicle Extension (s) | | 3.0 | 3.0 | 3.0 | | | | | | 3.0 | 3.0 | 3.0 |
| Recall Mode | | C-Max | C-Max | None | | | | | | None | None | None |
| Walk Time (s) | | 5.0 | 5.0 | | | | | | | 5.0 | 5.0 | 5.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | | | | | | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 0 | 0 | | | | | | | 0 | 0 | 0 |
| Act Effct Green (s) | | 31.0 | 31.0 | 9.9 | 63.0 | | | | | 9.0 | 9.0 | 9.0 |
| Actuated g/C Ratio | | 0.36 | 0.36 | 0.12 | 0.74 | | | | | 0.11 | 0.11 | 0.11 |
| v/c Ratio | | 0.18 | 0.11 | 0.47 | 0.09 | | | | | 0.31 | 0.14 | 0.03 |
| Control Delay | | 20.6 | 0.3 | 29.5 | 1.2 | | | | | 36.6 | 34.8 | 0.1 |
| Queue Delay | | 0.0 | 0.0 | 0.1 | 0.8 | | | | | 0.0 | 0.0 | 0.0 |
| Total Delay | | 20.6 | 0.3 | 29.7 | 2.0 | | | | | 36.6 | 34.8 | 0.1 |
| LOS | | C | A | C | A | | | | | D | C | A |
| Approach Delay | | 15.6 | | | 18.8 | | | | | | 33.6 | |
| Approach LOS | | B | | | B | | | | | | C | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 85 | |
| Actuated Cycle Length: 85 | |
| Offset: 44.5 (52%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.70 | |
| Intersection Signal Delay: 20.4 | Intersection LOS: C |
| Intersection Capacity Utilization 36.6% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 15:



## Lanes, Volumes, Timings
15: 02/04/2019

| Lane Group | Ø6 | Ø9 |
|---|---|---|
| Minimum Split (s) | 23.5 | 21.5 |
| Total Split (s) | 52.0 | 15.0 |
| Total Split (%) | 61% | 18% |
| Maximum Green (s) | 44.5 | 9.5 |
| Yellow Time (s) | 3.0 | 3.5 |
| All-Red Time (s) | 4.5 | 2.0 |
| Lost Time Adjust (s) | | |
| Total Lost Time (s) | | |
| Lead/Lag | | |
| Lead-Lag Optimize? | | |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | C-Max | None |
| Walk Time (s) | 5.0 | |
| Flash Dont Walk (s) | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | |
| Act Effct Green (s) | | |
| Actuated g/C Ratio | | |
| v/c Ratio | | |
| Control Delay | | |
| Queue Delay | | |
| Total Delay | | |
| LOS | | |
| Approach Delay | | |
| Approach LOS | | |

Intersection Summary



## Queues
15: 02/04/2019

| Lane Group | EBT | EBR | WBL | WBT | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 230 | 75 | 187 | 122 | 113 | 28 | 11 |
| v/c Ratio | 0.18 | 0.11 | 0.47 | 0.09 | 0.31 | 0.14 | 0.03 |
| Control Delay | 20.6 | 0.3 | 29.5 | 1.2 | 36.6 | 34.8 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.1 | 0.8 | 0.0 | 0.0 | 0.0 |
| Total Delay | 20.6 | 0.3 | 29.7 | 2.0 | 36.6 | 34.8 | 0.1 |
| Queue Length 50th (ft) | 43 | 0 | 31 | 3 | 29 | 14 | 0 |
| Queue Length 95th (ft) | 78 | 0 | 43 | 6 | 51 | 37 | 0 |
| Internal Link Dist (ft) | 125 | | | 108 | | 209 | |
| Turn Bay Length (ft) | | | | | | | |
| Base Capacity (vph) | 1290 | 707 | 646 | 1310 | 504 | 273 | 429 |
| Starvation Cap Reductn | 0 | 0 | 79 | 958 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.18 | 0.11 | 0.33 | 0.35 | 0.22 | 0.10 | 0.03 |

Intersection Summary

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 8 | 119 | 171 | 10 | 14 | 15 |
| Future Volume (vph) | 8 | 119 | 171 | 10 | 14 | 15 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | 0.992 | | 0.930 | |
| Flt Protected | | 0.997 | | | 0.976 | |
| Satd. Flow (prot) | 0 | 1857 | 1848 | 0 | 1691 | 0 |
| Flt Permitted | | 0.997 | | | 0.976 | |
| Satd. Flow (perm) | 0 | 1857 | 1848 | 0 | 1691 | 0 |
| Link Speed (mph) | | 30 | 30 | | 30 | |
| Link Distance (ft) | | 310 | 319 | | 450 | |
| Travel Time (s) | | 7.0 | 7.3 | | 10.2 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 9 | 129 | 186 | 11 | 15 | 16 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 138 | 197 | 0 | 31 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 0 | 0 | | 12 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Sign Control | | Free | Free | | Stop | |

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 22.8% ICU Level of Service A
Analysis Period (min) 15





| Intersection | |
|---|---|
| Int Delay, s/veh | 1.1 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 8 | 119 | 171 | 10 | 14 | 15 |
| Future Vol, veh/h | 8 | 119 | 171 | 10 | 14 | 15 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 9 | 129 | 186 | 11 | 15 | 16 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 197 | 0 | - | 0 | 339 | 192 |
| Stage 1 | - | - | - | - | 192 | - |
| Stage 2 | - | - | - | - | 147 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1376 | - | - | - | 657 | 850 |
| Stage 1 | - | - | - | - | 841 | - |
| Stage 2 | - | - | - | - | 880 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1376 | - | - | - | 652 | 850 |
| Mov Cap-2 Maneuver | - | - | - | - | 652 | - |
| Stage 1 | - | - | - | - | 835 | - |
| Stage 2 | - | - | - | - | 880 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.5 | 0 | 10.1 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1376 | - | - | - | 741 |
| HCM Lane V/C Ratio | 0.006 | - | - | - | 0.043 |
| HCM Control Delay (s) | 7.6 | 0 | - | - | 10.1 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.1 |

## 17: Seneca Street & 5S



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 76 | 850 | 46 | 0 | 983 | 15 | 0 | 0 | 11 | 0 | 0 | 88 |
| Future Volume (vph) | 76 | 850 | 46 | 0 | 983 | 15 | 0 | 0 | 11 | 0 | 0 | 88 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | 0 | 150 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 1 | | 0 | 0 | | 0 | 0 | | 1 | 0 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.992 | | | 0.998 | | | | 0.865 | | | 0.865 |
| Flt Protected | 0.950 | | | | | | | | | | | |
| Satd. Flow (prot) | 1752 | 3482 | 0 | 0 | 3532 | 0 | 0 | 0 | 1644 | 0 | 0 | 1644 |
| Flt Permitted | 0.950 | | | | | | | | | | | |
| Satd. Flow (perm) | 1752 | 3482 | 0 | 0 | 3532 | 0 | 0 | 0 | 1644 | 0 | 0 | 1644 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 333 | | | 392 | | | 423 | | | 252 | |
| Travel Time (s) | | 7.6 | | | 8.9 | | | 9.6 | | | 5.7 | |
| Peak Hour Factor | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 |
| Heavy Vehicles (%) | 3% | 3% | 0% | 2% | 2% | 2% | 0% | 2% | 0% | 2% | 2% | 0% |
| Adj. Flow (vph) | 92 | 1024 | 55 | 0 | 1184 | 18 | 0 | 0 | 13 | 0 | 0 | 106 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 92 | 1079 | 0 | 0 | 1202 | 0 | 0 | 0 | 13 | 0 | 0 | 106 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Sign Control | | Free | | | Free | | | Yield | | | Yield | |

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 39.8% ICU Level of Service A

Analysis Period (min) 15





## 19: Seneca Street & La Fayette Street



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 15 | 116 | 4 | 7 | 126 | 15 | 4 | 3 | 4 | 14 | 3 | 62 |
| Future Volume (vph) | 15 | 116 | 4 | 7 | 126 | 15 | 4 | 3 | 4 | 14 | 3 | 62 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.996 | | | 0.987 | | | 0.951 | | | 0.894 | |
| Flt Protected | | 0.995 | | | 0.998 | | | 0.982 | | | 0.991 | |
| Satd. Flow (prot) | 0 | 1846 | 0 | 0 | 1835 | 0 | 0 | 1740 | 0 | 0 | 1650 | 0 |
| Flt Permitted | | 0.995 | | | 0.998 | | | 0.982 | | | 0.991 | |
| Satd. Flow (perm) | 0 | 1846 | 0 | 0 | 1835 | 0 | 0 | 1740 | 0 | 0 | 1650 | 0 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 319 | | | 216 | | | 181 | | | 423 | |
| Travel Time (s) | | 7.3 | | | 4.9 | | | 4.1 | | | 9.6 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 16 | 126 | 4 | 8 | 137 | 16 | 4 | 3 | 4 | 15 | 3 | 67 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 146 | 0 | 0 | 161 | 0 | 0 | 11 | 0 | 0 | 85 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 23.8% ICU Level of Service A

Analysis Period (min) 15

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.9 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 15 | 116 | 4 | 7 | 126 | 15 | 4 | 3 | 4 | 14 | 3 | 62 |
| Future Vol, veh/h | 15 | 116 | 4 | 7 | 126 | 15 | 4 | 3 | 4 | 14 | 3 | 62 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 16 | 126 | 4 | 8 | 137 | 16 | 4 | 3 | 4 | 15 | 3 | 67 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 153 | 0 | 0 | 130 | 0 | 0 | 356 | 329 | 128 | 325 | 323 | 145 |
| Stage 1 | - | - | - | - | - | - | 160 | 160 | - | 161 | 161 | - |
| Stage 2 | - | - | - | - | - | - | 196 | 169 | - | 164 | 162 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1428 | - | - | 1455 | - | - | 599 | 590 | 922 | 628 | 595 | 902 |
| Stage 1 | - | - | - | - | - | - | 842 | 766 | - | 841 | 765 | - |
| Stage 2 | - | - | - | - | - | - | 806 | 759 | - | 838 | 764 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1428 | - | - | 1455 | - | - | 544 | 579 | 922 | 614 | 584 | 902 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 544 | 579 | - | 614 | 584 | - |
| Stage 1 | - | - | - | - | - | - | 832 | 757 | - | 831 | 760 | - |
| Stage 2 | - | - | - | - | - | - | 738 | 754 | - | 820 | 755 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 0.8 | 0.4 | 10.6 | 9.9 |
| HCM LOS | | | B | A |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 652 | 1428 | - | - | 1455 | - | - | 817 |
| HCM Lane V/C Ratio | 0.018 | 0.011 | - | - | 0.005 | - | - | 0.105 |
| HCM Control Delay (s) | 10.6 | 7.5 | 0 | - | 7.5 | 0 | - | 9.9 |
| HCM Lane LOS | B | A | A | - | A | A | - | A |
| HCM 95th %tile Q(veh) | 0.1 | 0 | - | - | 0 | - | - | 0.4 |





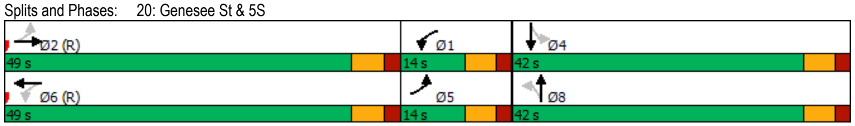
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 2 | 746 | 170 | 127 | 851 | 7 | 45 | 155 | 42 | 41 | 435 | 35 |
| Future Volume (vph) | 2 | 746 | 170 | 127 | 851 | 7 | 45 | 155 | 42 | 41 | 435 | 35 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | 150 | 150 | | 0 | 150 | | 0 | 150 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 |
| Frt | | 0.972 | | | 0.999 | | | 0.968 | | | 0.989 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 3474 | 0 | 1770 | 3502 | 0 | 1770 | 1662 | 0 | 1770 | 3469 | 0 |
| Flt Permitted | 0.224 | | | 0.183 | | | 0.248 | | | 0.445 | | |
| Satd. Flow (perm) | 417 | 3474 | 0 | 341 | 3502 | 0 | 462 | 1662 | 0 | 829 | 3469 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 32 | | | 1 | | | 14 | | | 9 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 392 | | | 616 | | | 464 | | | 307 | |
| Travel Time (s) | | 8.9 | | | 14.0 | | | 10.5 | | | 7.0 | |
| Peak Hour Factor | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 |
| Heavy Vehicles (%) | 2% | 1% | 1% | 2% | 3% | 2% | 2% | 13% | 2% | 2% | 3% | 2% |
| Adj. Flow (vph) | 2 | 867 | 198 | 148 | 990 | 8 | 52 | 180 | 49 | 48 | 506 | 41 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 2 | 1065 | 0 | 148 | 998 | 0 | 52 | 229 | 0 | 48 | 547 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | pm+pt | NA | | pm+pt | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Permitted Phases | 2 | | | 6 | | | 8 | | | 4 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 8 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 8.0 | 15.0 | | 8.0 | 15.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 14.0 | 46.0 | | 14.0 | 46.0 | | 42.0 | 42.0 | | 42.0 | 42.0 | |
| Total Split (s) | 14.0 | 49.0 | | 14.0 | 49.0 | | 42.0 | 42.0 | | 42.0 | 42.0 | |
| Total Split (%) | 13.3% | 46.7% | | 13.3% | 46.7% | | 40.0% | 40.0% | | 40.0% | 40.0% | |
| Maximum Green (s) | 8.0 | 43.0 | | 8.0 | 43.0 | | 36.0 | 36.0 | | 36.0 | 36.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Lead/Lag | Lag | Lead | | Lag | Lead | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 1.0 | | 3.0 | 3.0 | | 2.5 | 2.5 | | 2.5 | 2.5 | |
| Recall Mode | None | C-Min | | None | C-Min | | None | None | | None | None | |
| Walk Time (s) | | 7.0 | | | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | | 33.0 | | | 33.0 | | 29.0 | 29.0 | | 29.0 | 29.0 | |
| Pedestrian Calls (#/hr) | | 0 | | | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | 64.3 | 56.1 | | 70.5 | 68.0 | | 22.0 | 22.0 | | 22.0 | 22.0 | |
| Actuated g/C Ratio | 0.61 | 0.53 | | 0.67 | 0.65 | | 0.21 | 0.21 | | 0.21 | 0.21 | |
| v/c Ratio | 0.01 | 0.57 | | 0.42 | 0.44 | | 0.54 | 0.64 | | 0.28 | 0.75 | |
| Control Delay | 3.0 | 7.8 | | 17.8 | 11.6 | | 56.6 | 43.2 | | 37.3 | 44.4 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 3.0 | 7.8 | | 17.8 | 11.6 | | 56.6 | 43.2 | | 37.3 | 44.4 | |
| LOS | A | A | | B | B | | E | D | | D | D | |
| Approach Delay | | 7.8 | | | 12.4 | | | 45.7 | | | 43.8 | |
| Approach LOS | | A | | | B | | | D | | | D | |

Intersection Summary

Area Type: Other
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 32 (30%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 105
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 19.9 Intersection LOS: B
Intersection Capacity Utilization 71.2% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 20: Genesee St & 5S








| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 2 | 1065 | 148 | 998 | 52 | 229 | 48 | 547 |
| v/c Ratio | 0.01 | 0.57 | 0.42 | 0.44 | 0.54 | 0.64 | 0.28 | 0.75 |
| Control Delay | 3.0 | 7.8 | 17.8 | 11.6 | 56.6 | 43.2 | 37.3 | 44.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 3.0 | 7.8 | 17.8 | 11.6 | 56.6 | 43.2 | 37.3 | 44.4 |
| Queue Length 50th (ft) | 0 | 84 | 32 | 143 | 31 | 133 | 27 | 178 |
| Queue Length 95th (ft) | m1 | 215 | 62 | 296 | 66 | 188 | 55 | 209 |
| Internal Link Dist (ft) | | 312 | | 536 | | 384 | | 227 |
| Turn Bay Length (ft) | 150 | | 150 | | 150 | | 150 | |
| Base Capacity (vph) | 361 | 1870 | 349 | 2267 | 158 | 579 | 284 | 1195 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.01 | 0.57 | 0.42 | 0.44 | 0.33 | 0.40 | 0.17 | 0.46 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 22 | 103 | 36 | 29 | 82 | 9 | 19 | 164 | 21 | 84 | 443 | 44 |
| Future Volume (vph) | 22 | 103 | 36 | 29 | 82 | 9 | 19 | 164 | 21 | 84 | 443 | 44 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Frt | | 0.970 | | | 0.990 | | | 0.984 | | | 0.988 | |
| Flt Protected | | 0.993 | | | 0.988 | | | 0.995 | | | 0.993 | |
| Satd. Flow (prot) | 0 | 1794 | 0 | 0 | 1822 | 0 | 0 | 3465 | 0 | 0 | 3472 | 0 |
| Flt Permitted | | 0.923 | | | 0.752 | | | 0.877 | | | 0.857 | |
| Satd. Flow (perm) | 0 | 1668 | 0 | 0 | 1387 | 0 | 0 | 3054 | 0 | 0 | 2997 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 12 | | | 4 | | | 17 | | | 16 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 216 | | | 304 | | | 420 | | | 464 | |
| Travel Time (s) | | 4.9 | | | 6.9 | | | 9.5 | | | 10.5 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 24 | 112 | 39 | 32 | 89 | 10 | 21 | 178 | 23 | 91 | 482 | 48 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 175 | 0 | 0 | 131 | 0 | 0 | 222 | 0 | 0 | 621 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | pm+pt | NA | |
| Protected Phases | | 4 | | | 8 | | | 6 | | 5 | 2 | |
| Permitted Phases | 4 | | | 8 | | | 6 | | | 2 | | |
| Detector Phase | 4 | 4 | | 8 | 8 | | 6 | 6 | | 5 | 2 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |



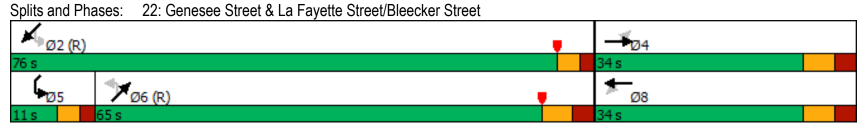


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Split (s) | 23.0 | 23.0 | | 23.0 | 23.0 | | 23.0 | 23.0 | | 9.0 | 23.0 | |
| Total Split (s) | 34.0 | 34.0 | | 34.0 | 34.0 | | 65.0 | 65.0 | | 11.0 | 76.0 | |
| Total Split (%) | 30.9% | 30.9% | | 30.9% | 30.9% | | 59.1% | 59.1% | | 10.0% | 69.1% | |
| Maximum Green (s) | 27.0 | 27.0 | | 27.0 | 27.0 | | 58.0 | 58.0 | | 6.0 | 71.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 2.0 | 2.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 7.0 | | | 7.0 | | | 7.0 | | | 5.0 | |
| Lead/Lag | | | | | | | Lag | Lag | | Lead | | |
| Lead-Lag Optimize? | | | | | | | Yes | Yes | | Yes | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | None | None | | None | None | | C-Max | C-Max | | None | C-Max | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | | 0 | |
| Act Effct Green (s) | | 15.9 | | | 15.9 | | | 80.1 | | | 82.1 | |
| Actuated g/C Ratio | | 0.14 | | | 0.14 | | | 0.73 | | | 0.75 | |
| v/c Ratio | | 0.70 | | | 0.65 | | | 0.10 | | | 0.28 | |
| Control Delay | | 55.7 | | | 56.8 | | | 9.7 | | | 5.1 | |
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 55.7 | | | 56.8 | | | 9.7 | | | 5.1 | |
| LOS | | E | | | E | | | A | | | A | |
| Approach Delay | | 55.7 | | | 56.8 | | | 9.7 | | | 5.1 | |
| Approach LOS | | E | | | E | | | A | | | A | |

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 2:SWTL and 6:NETL, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 19.6 Intersection LOS: B
Intersection Capacity Utilization 48.5% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 22: Genesee Street & La Fayette Street/Bleecker Street



## Queues
## 22: Genesee Street & La Fayette Street/Bleecker Street

02/04/2019

| Lane Group | EBT | WBT | NET | SWT |
|---|---|---|---|---|
| Lane Group Flow (vph) | 175 | 131 | 222 | 621 |
| v/c Ratio | 0.70 | 0.65 | 0.10 | 0.28 |
| Control Delay | 55.7 | 56.8 | 9.7 | 5.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 55.7 | 56.8 | 9.7 | 5.1 |
| Queue Length 50th (ft) | 111 | 86 | 30 | 60 |
| Queue Length 95th (ft) | 174 | 142 | 68 | 104 |
| Internal Link Dist (ft) | 136 | 224 | 340 | 384 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 418 | 343 | 2228 | 2240 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.42 | 0.38 | 0.10 | 0.28 |

Intersection Summary



## Lanes, Volumes, Timings
## 23: Columbia Street/Elizabeth Street & Genesee Street

02/04/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 23 | 130 | 28 | 11 | 47 | 21 | 27 | 170 | 23 | 99 | 386 | 26 |
| Future Volume (vph) | 23 | 130 | 28 | 11 | 47 | 21 | 27 | 170 | 23 | 99 | 386 | 26 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Frt | | 0.979 | | | 0.964 | | | 0.984 | | | 0.992 | |
| Flt Protected | | 0.994 | | | 0.993 | | | 0.994 | | | 0.990 | |
| Satd. Flow (prot) | 0 | 1813 | 0 | 0 | 1783 | 0 | 0 | 3462 | 0 | 0 | 3476 | 0 |
| Flt Permitted | | 0.947 | | | 0.910 | | | 0.854 | | | 0.818 | |
| Satd. Flow (perm) | 0 | 1727 | 0 | 0 | 1634 | 0 | 0 | 2974 | 0 | 0 | 2872 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 8 | | | 16 | | | 16 | | | 9 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 664 | | | 274 | | | 195 | | | 420 | |
| Travel Time (s) | | 15.1 | | | 6.2 | | | 4.4 | | | 9.5 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 25 | 141 | 30 | 12 | 51 | 23 | 29 | 185 | 25 | 108 | 420 | 28 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 196 | 0 | 0 | 86 | 0 | 0 | 239 | 0 | 0 | 556 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | pm+pt | NA | |
| Protected Phases | | 4 | | | 8 | | | 6 | | 5 | 2 | |
| Permitted Phases | 4 | | | 8 | | | 6 | | | 2 | | |
| Detector Phase | 4 | 4 | | 8 | 8 | | 6 | 6 | | 5 | 2 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Split (s) | 14.0 | 14.0 | | 14.0 | 14.0 | | 23.5 | 23.5 | | 23.5 | 23.5 | |
| Total Split (s) | 36.0 | 36.0 | | 36.0 | 36.0 | | 62.0 | 62.0 | | 12.0 | 74.0 | |
| Total Split (%) | 32.7% | 32.7% | | 32.7% | 32.7% | | 56.4% | 56.4% | | 10.9% | 67.3% | |
| Maximum Green (s) | 29.0 | 29.0 | | 29.0 | 29.0 | | 55.0 | 55.0 | | 6.0 | 67.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 2.0 | 3.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 7.0 | | | 7.0 | | | 7.0 | | | 7.0 | |
| Lead/Lag | | | | | | | Lag | Lag | | Lead | | |
| Lead-Lag Optimize? | | | | | | | Yes | Yes | | Yes | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | None | None | | None | None | | C-Max | C-Max | | None | C-Max | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 17.2 | | | 17.2 | | | 78.8 | | | 78.8 | |
| Actuated g/C Ratio | | 0.16 | | | 0.16 | | | 0.72 | | | 0.72 | |
| v/c Ratio | | 0.71 | | | 0.32 | | | 0.11 | | | 0.27 | |
| Control Delay | | 53.0 | | | 34.9 | | | 7.6 | | | 5.4 | |
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 53.0 | | | 34.9 | | | 7.6 | | | 5.4 | |
| LOS | | D | | | C | | | A | | | A | |
| Approach Delay | | 53.0 | | | 34.9 | | | 7.6 | | | 5.4 | |
| Approach LOS | | D | | | C | | | A | | | A | |

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 68 (62%), Referenced to phase 2:SWTL and 6:NETL, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

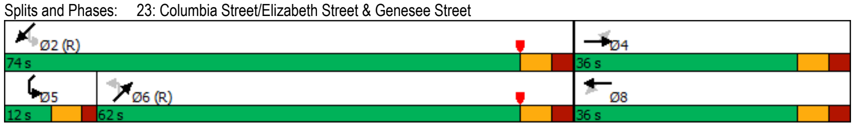
Maximum v/c Ratio: 0.71

Intersection Signal Delay: 16.9 Intersection LOS: B

Intersection Capacity Utilization 50.9% ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 23: Columbia Street/Elizabeth Street & Genesee Street








| Lane Group | EBT | WBT | NET | SWT |
|---|---|---|---|---|
| Lane Group Flow (vph) | 196 | 86 | 239 | 556 |
| v/c Ratio | 0.71 | 0.32 | 0.11 | 0.27 |
| Control Delay | 53.0 | 34.9 | 7.6 | 5.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 53.0 | 34.9 | 7.6 | 5.4 |
| Queue Length 50th (ft) | 132 | 44 | 34 | 53 |
| Queue Length 95th (ft) | 201 | 86 | 60 | 89 |
| Internal Link Dist (ft) | 584 | 194 | 115 | 340 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 461 | 442 | 2134 | 2058 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.43 | 0.19 | 0.11 | 0.27 |

Intersection Summary

# Lanes, Volumes, Timings
## 24: Broad St & Genesee St SB Off-Ramp
02/04/2019

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 80 | 30 | 27 | 78 | 0 | 0 | 0 | 0 | 533 | 54 | 0 |
| Future Volume (vph) | 0 | 80 | 30 | 27 | 78 | 0 | 0 | 0 | 0 | 533 | 54 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 100 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 1 | | 0 | 0 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 |
| Frt | | 0.959 | | | | | | | | | | |
| Flt Protected | | | | 0.950 | | | | | | 0.950 | 0.961 | |
| Satd. Flow (prot) | 0 | 3394 | 0 | 1770 | 1863 | 0 | 0 | 0 | 0 | 1681 | 1701 | 0 |
| Flt Permitted | | | | 0.676 | | | | | | 0.950 | 0.961 | |
| Satd. Flow (perm) | 0 | 3394 | 0 | 1259 | 1863 | 0 | 0 | 0 | 0 | 1681 | 1701 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 33 | | | | | | | | | | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 342 | | | 169 | | | 195 | | | 367 | |
| Travel Time (s) | | 7.8 | | | 3.8 | | | 4.4 | | | 8.3 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 0 | 87 | 33 | 29 | 85 | 0 | 0 | 0 | 0 | 579 | 59 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | 45% | | |
| Lane Group Flow (vph) | 0 | 120 | 0 | 29 | 85 | 0 | 0 | 0 | 0 | 318 | 320 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | | 2 | | 1 | 2 | | | | | 1 | 2 | |
| Detector Template | | Thru | | Left | Thru | | | | | Left | Thru | |
| Leading Detector (ft) | | 100 | | 20 | 100 | | | | | 20 | 100 | |
| Trailing Detector (ft) | | 0 | | 0 | 0 | | | | | 0 | 0 | |
| Detector 1 Position(ft) | | 0 | | 0 | 0 | | | | | 0 | 0 | |
| Detector 1 Size(ft) | | 6 | | 20 | 6 | | | | | 20 | 6 | |
| Detector 1 Type | | Cl+Ex | | Cl+Ex | Cl+Ex | | | | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | | 0.0 | | 0.0 | 0.0 | | | | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | | 0.0 | | 0.0 | 0.0 | | | | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | | 0.0 | | 0.0 | 0.0 | | | | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | | | 0.0 | |
| Turn Type | | NA | | Perm | NA | | | | | Perm | NA | |
| Protected Phases | | 1 | | | 1 | | | | | | 4 | |
| Permitted Phases | | | | 1 | | | | | | 4 | | |



# Lanes, Volumes, Timings
## 24: Broad St & Genesee St SB Off-Ramp
02/04/2019

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Detector Phase | | 1 | | 1 | 1 | | | | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | 4.0 | | 4.0 | 4.0 | | | | | 4.0 | 4.0 | |
| Minimum Split (s) | | 9.0 | | 9.0 | 9.0 | | | | | 26.0 | 26.0 | |
| Total Split (s) | | 20.0 | | 20.0 | 20.0 | | | | | 60.0 | 60.0 | |
| Total Split (%) | | 25.0% | | 25.0% | 25.0% | | | | | 75.0% | 75.0% | |
| Maximum Green (s) | | 15.0 | | 15.0 | 15.0 | | | | | 55.0 | 55.0 | |
| Yellow Time (s) | | 3.5 | | 3.5 | 3.5 | | | | | 3.5 | 3.5 | |
| All-Red Time (s) | | 1.5 | | 1.5 | 1.5 | | | | | 1.5 | 1.5 | |
| Lost Time Adjust (s) | | 0.0 | | 0.0 | 0.0 | | | | | 0.0 | 0.0 | |
| Total Lost Time (s) | | 5.0 | | 5.0 | 5.0 | | | | | 5.0 | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | | 2.0 | | 2.0 | 2.0 | | | | | 2.0 | 2.0 | |
| Recall Mode | | None | | None | None | | | | | None | None | |
| Walk Time (s) | | 7.0 | | 7.0 | 7.0 | | | | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | | 14.0 | | 14.0 | 14.0 | | | | | 14.0 | 14.0 | |
| Pedestrian Calls (#/hr) | | 25 | | 25 | 25 | | | | | 25 | 25 | |
| Act Effct Green (s) | | 8.3 | | 8.3 | 8.3 | | | | | 12.1 | 12.1 | |
| Actuated g/C Ratio | | 0.29 | | 0.29 | 0.29 | | | | | 0.42 | 0.42 | |
| v/c Ratio | | 0.12 | | 0.08 | 0.16 | | | | | 0.45 | 0.45 | |
| Control Delay | | 7.7 | | 10.2 | 10.4 | | | | | 9.9 | 9.9 | |
| Queue Delay | | 0.0 | | 0.0 | 0.0 | | | | | 0.0 | 0.0 | |
| Total Delay | | 7.7 | | 10.2 | 10.4 | | | | | 9.9 | 9.9 | |
| LOS | | A | | B | B | | | | | A | A | |
| Approach Delay | | 7.7 | | | 10.4 | | | | | | 9.9 | |
| Approach LOS | | A | | | B | | | | | | A | |

**Intersection Summary**

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 28.7
Natural Cycle: 40
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.45
Intersection Signal Delay: 9.6 Intersection LOS: A
Intersection Capacity Utilization 32.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 24: Broad St & Genesee St SB Off-Ramp

| Lane Group | SET | NWL | NWT | SWL | SWT |
|---|---|---|---|---|---|
| Lane Group Flow (vph) | 120 | 29 | 85 | 318 | 320 |
| v/c Ratio | 0.12 | 0.08 | 0.16 | 0.45 | 0.45 |
| Control Delay | 7.7 | 10.2 | 10.4 | 9.9 | 9.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 7.7 | 10.2 | 10.4 | 9.9 | 9.9 |
| Queue Length 50th (ft) | 4 | 3 | 9 | 27 | 27 |
| Queue Length 95th (ft) | 20 | 17 | 37 | 132 | 132 |
| Internal Link Dist (ft) | 262 | | 89 | | 287 |
| Turn Bay Length (ft) | | 100 | | | |
| Base Capacity (vph) | 2128 | 784 | 1161 | 1681 | 1701 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.04 | 0.07 | 0.19 | 0.19 |

Intersection Summary





| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 17 | 6 | 3 | 3 | 194 | 7 | 85 | 299 | 30 |
| Future Volume (vph) | 0 | 0 | 0 | 17 | 6 | 3 | 3 | 194 | 7 | 85 | 299 | 30 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Frt | | | | | 0.986 | | | 0.995 | | | 0.989 | |
| Flt Protected | | | | | 0.969 | | | 0.999 | | | 0.990 | |
| Satd. Flow (prot) | 0 | 0 | 0 | 0 | 1780 | 0 | 0 | 3518 | 0 | 0 | 3465 | 0 |
| Flt Permitted | | | | | 0.969 | | | 0.951 | | | 0.827 | |
| Satd. Flow (perm) | 0 | 0 | 0 | 0 | 1780 | 0 | 0 | 3349 | 0 | 0 | 2895 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | | | 3 | | | 7 | | | 16 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 313 | | | 160 | | | 152 | | | 194 | |
| Travel Time (s) | | 7.1 | | | 3.6 | | | 3.5 | | | 4.4 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 0 | 0 | 0 | 18 | 7 | 3 | 3 | 211 | 8 | 92 | 325 | 33 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 0 | 0 | 28 | 0 | 0 | 222 | 0 | 0 | 450 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | | | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | | | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | | | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | | | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | | | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | | | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | | | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | | | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | | | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | | | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | | | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | | | | 4 | | | 2 | | | 2 | |
| Permitted Phases | | | | 4 | | | 2 | | | 2 | | |
| Detector Phase | | | | 4 | 4 | | 2 | 2 | | 2 | 2 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |

| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Split (s) | | | | 70.5 | 70.5 | | 70.5 | 70.5 | | 70.5 | 70.5 | |
| Total Split (s) | | | | 30.0 | 30.0 | | 80.0 | 80.0 | | 80.0 | 80.0 | |
| Total Split (%) | | | | 27.3% | 27.3% | | 72.7% | 72.7% | | 72.7% | 72.7% | |
| Maximum Green (s) | | | | 24.0 | 24.0 | | 74.0 | 74.0 | | 74.0 | 74.0 | |
| Yellow Time (s) | | | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | | | | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Lost Time Adjust (s) | | | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | | | | 6.0 | | | 6.0 | | | 6.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | | | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | | | | None | None | | C-Max | C-Max | | C-Max | C-Max | |
| Walk Time (s) | | | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | | | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | | | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | | | | 7.1 | | | 98.0 | | | 98.0 | |
| Actuated g/C Ratio | | | | | 0.06 | | | 0.89 | | | 0.89 | |
| v/c Ratio | | | | | 0.24 | | | 0.07 | | | 0.17 | |
| Control Delay | | | | | 49.2 | | | 1.4 | | | 2.7 | |
| Queue Delay | | | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | | | | 49.2 | | | 1.4 | | | 2.7 | |
| LOS | | | | | D | | | A | | | A | |
| Approach Delay | | | | | 49.2 | | | 1.4 | | | 2.7 | |
| Approach LOS | | | | | D | | | A | | | A | |

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 7 (6%), Referenced to phase 2:NESW and 6:, Start of Yellow

Natural Cycle: 145

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.24

Intersection Signal Delay: 4.1 Intersection LOS: A

Intersection Capacity Utilization 36.5% ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 25: Blandina Street & Genesee Street






| Lane Group | SBT | NET | SWT |
|---|---|---|---|
| Lane Group Flow (vph) | 28 | 222 | 450 |
| v/c Ratio | 0.24 | 0.07 | 0.17 |
| Control Delay | 49.2 | 1.4 | 2.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 |
| Total Delay | 49.2 | 1.4 | 2.7 |
| Queue Length 50th (ft) | 17 | 10 | 16 |
| Queue Length 95th (ft) | 46 | 17 | 77 |
| Internal Link Dist (ft) | 80 | 72 | 114 |
| Turn Bay Length (ft) | | | |
| Base Capacity (vph) | 390 | 2983 | 2580 |
| Starvation Cap Reductn | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.07 | 0.07 | 0.17 |

Intersection Summary

| Lane Group | NBL | NBR | NET | NER | SWL | SWT | Ø4 |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 208 | 18 | 23 | 280 | |
| Future Volume (vph) | 0 | 0 | 208 | 18 | 23 | 280 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 | |
| Frt | | | 0.988 | | | | |
| Flt Protected | | | | | | 0.996 | |
| Satd. Flow (prot) | 0 | 0 | 3497 | 0 | 0 | 3525 | |
| Flt Permitted | | | | | | 0.921 | |
| Satd. Flow (perm) | 0 | 0 | 3497 | 0 | 0 | 3260 | |
| Right Turn on Red | | Yes | | Yes | | | |
| Satd. Flow (RTOR) | | | 20 | | | | |
| Link Speed (mph) | 30 | | 30 | | | 30 | |
| Link Distance (ft) | 399 | | 483 | | | 150 | |
| Travel Time (s) | 9.1 | | 11.0 | | | 3.4 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | |
| Adj. Flow (vph) | 0 | 0 | 226 | 20 | 25 | 304 | |
| Shared Lane Traffic (%) | | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 246 | 0 | 0 | 329 | |
| Enter Blocked Intersection | No | No | No | No | No | No | |
| Lane Alignment | Left | Right | Left | Right | Left | Left | |
| Median Width(ft) | 0 | | 0 | | | 0 | |
| Link Offset(ft) | 0 | | 0 | | | 0 | |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | | |
| Number of Detectors | | | 2 | | 1 | 2 | |
| Detector Template | | | Thru | | Left | Thru | |
| Leading Detector (ft) | | | 100 | | 20 | 100 | |
| Trailing Detector (ft) | | | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | | | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | | | 6 | | 20 | 6 | |
| Detector 1 Type | | | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | |
| Detector 1 Extend (s) | | | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | | | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | | | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | | 6 | | | 6 | |
| Detector 2 Type | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | |
| Detector 2 Extend (s) | | | 0.0 | | | 0.0 | |
| Turn Type | | | NA | | Perm | NA | |
| Protected Phases | | | 6 | | | 2 | 4 |
| Permitted Phases | | | | | 2 | | |
| Detector Phase | | | 6 | | 2 | 2 | |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | | | 5.0 | | 5.0 | 5.0 | 15.0 |



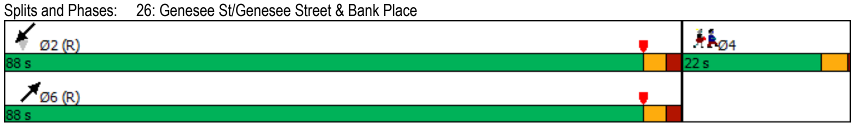


| Lane Group | NBL | NBR | NET | NER | SWL | SWT | Ø4 |
|---|---|---|---|---|---|---|---|
| Minimum Split (s) | | | 23.0 | | 27.0 | 27.0 | 22.0 |
| Total Split (s) | | | 88.0 | | 88.0 | 88.0 | 22.0 |
| Total Split (%) | | | 80.0% | | 80.0% | 80.0% | 20% |
| Maximum Green (s) | | | 83.0 | | 83.0 | 83.0 | 18.0 |
| Yellow Time (s) | | | 3.0 | | 3.0 | 3.0 | 3.5 |
| All-Red Time (s) | | | 2.0 | | 2.0 | 2.0 | 0.5 |
| Lost Time Adjust (s) | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | |
| Lead-Lag Optimize? | | | | | | | |
| Vehicle Extension (s) | | | 3.0 | | 3.0 | 3.0 | 3.0 |
| Recall Mode | | | C-Max | | C-Max | C-Max | None |
| Walk Time (s) | | | 5.0 | | 5.0 | 5.0 | 5.0 |
| Flash Dont Walk (s) | | | 11.0 | | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | | 0 | | 0 | 0 | 0 |
| Act Effct Green (s) | | | 110.0 | | | 110.0 | |
| Actuated g/C Ratio | | | 1.00 | | | 1.00 | |
| v/c Ratio | | | 0.07 | | | 0.10 | |
| Control Delay | | | 0.0 | | | 0.1 | |
| Queue Delay | | | 0.0 | | | 0.0 | |
| Total Delay | | | 0.0 | | | 0.1 | |
| LOS | | | A | | | A | |
| Approach Delay | | | | | | 0.1 | |
| Approach LOS | | | | | | A | |

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 83 (75%), Referenced to phase 2:SWTL and 6:NET, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.10
Intersection Signal Delay: 0.1 Intersection LOS: A
Intersection Capacity Utilization 23.1% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 26: Genesee St/Genesee Street & Bank Place



Queues
## 26: Genesee St/Genesee Street & Bank Place
02/04/2019

| Lane Group | NET | SWT |
|---|---|---|
| Lane Group Flow (vph) | 246 | 329 |
| v/c Ratio | 0.07 | 0.10 |
| Control Delay | 0.0 | 0.1 |
| Queue Delay | 0.0 | 0.0 |
| Total Delay | 0.0 | 0.1 |
| Queue Length 50th (ft) | 0 | 0 |
| Queue Length 95th (ft) | 0 | 0 |
| Internal Link Dist (ft) | 403 | 70 |
| Turn Bay Length (ft) | | |
| Base Capacity (vph) | 3497 | 3260 |
| Starvation Cap Reductn | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 |
| Storage Cap Reductn | 0 | 0 |
| Reduced v/c Ratio | 0.07 | 0.10 |

Intersection Summary



Lanes, Volumes, Timings
## 27: Genesee St & Hopper St/Court Street
02/04/2019

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 4 | 319 | 68 | 1 | 180 | 26 | 10 | 262 | 23 | 6 | 246 | 33 |
| Future Volume (vph) | 4 | 319 | 68 | 1 | 180 | 26 | 10 | 262 | 23 | 6 | 246 | 33 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Frt | | 0.974 | | | 0.981 | | | 0.988 | | | 0.983 | |
| Flt Protected | | | | | | | | 0.998 | | | 0.999 | |
| Satd. Flow (prot) | 0 | 3447 | 0 | 0 | 3472 | 0 | 0 | 3490 | 0 | 0 | 3476 | 0 |
| Flt Permitted | | 0.952 | | | 0.953 | | | 0.942 | | | 0.948 | |
| Satd. Flow (perm) | 0 | 3282 | 0 | 0 | 3309 | 0 | 0 | 3294 | 0 | 0 | 3298 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 22 | | | 14 | | | 15 | | | 25 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 202 | | | 224 | | | 440 | | | 483 | |
| Travel Time (s) | | 4.6 | | | 5.1 | | | 10.0 | | | 11.0 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 4 | 347 | 74 | 1 | 196 | 28 | 11 | 285 | 25 | 7 | 267 | 36 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 425 | 0 | 0 | 225 | 0 | 0 | 321 | 0 | 0 | 310 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Detector Phase | 4 | 4 | | 8 | 8 | | 2 | 2 | | 6 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 1.0 | 1.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |

## Lanes, Volumes, Timings
## 27: Genesee St & Hopper St/Court Street
02/04/2019

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Split (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Total Split (s) | 35.0 | 35.0 | | 35.0 | 35.0 | | 75.0 | 75.0 | | 75.0 | 75.0 | |
| Total Split (%) | 31.8% | 31.8% | | 31.8% | 31.8% | | 68.2% | 68.2% | | 68.2% | 68.2% | |
| Maximum Green (s) | 29.0 | 29.0 | | 29.0 | 29.0 | | 69.0 | 69.0 | | 69.0 | 69.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | | 6.0 | | | 6.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | None | None | | None | None | | C-Max | C-Max | | C-Max | C-Max | |
| Walk Time (s) | 11.0 | 11.0 | | 7.0 | 7.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Flash Dont Walk (s) | 38.0 | 38.0 | | 15.0 | 15.0 | | 38.0 | 38.0 | | 38.0 | 38.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 19.2 | | | 19.2 | | | 78.8 | | | 78.8 | |
| Actuated g/C Ratio | | 0.17 | | | 0.17 | | | 0.72 | | | 0.72 | |
| v/c Ratio | | 0.72 | | | 0.38 | | | 0.14 | | | 0.13 | |
| Control Delay | | 47.4 | | | 38.6 | | | 5.2 | | | 5.7 | |
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 47.4 | | | 38.6 | | | 5.2 | | | 5.7 | |
| LOS | | D | | | D | | | A | | | A | |
| Approach Delay | | 47.4 | | | 38.6 | | | 5.2 | | | 5.7 | |
| Approach LOS | | D | | | D | | | A | | | A | |

**Intersection Summary**

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 19 (17%), Referenced to phase 2:NETL and 6:SWTL, Start of Yellow
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 25.2 — Intersection LOS: C
Intersection Capacity Utilization 39.2% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 27: Genesee St & Hopper St/Court Street




## Queues
## 27: Genesee St & Hopper St/Court Street
02/04/2019

| Lane Group | SET | NWT | NET | SWT |
|---|---|---|---|---|
| Lane Group Flow (vph) | 425 | 225 | 321 | 310 |
| v/c Ratio | 0.72 | 0.38 | 0.14 | 0.13 |
| Control Delay | 47.4 | 38.6 | 5.2 | 5.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 47.4 | 38.6 | 5.2 | 5.7 |
| Queue Length 50th (ft) | 143 | 70 | 30 | 34 |
| Queue Length 95th (ft) | 186 | 101 | 54 | 77 |
| Internal Link Dist (ft) | 122 | 144 | 360 | 403 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 881 | 882 | 2363 | 2369 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.48 | 0.26 | 0.14 | 0.13 |

**Intersection Summary**

# Future Build PM Synchro Reports

| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR | Ø1 | Ø2 | Ø8 |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 345 | 0 | 0 | 569 | 33 | 179 | | | |
| Future Volume (vph) | 345 | 0 | 0 | 569 | 33 | 179 | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | | | |
| Lane Util. Factor | 0.95 | 1.00 | 1.00 | 0.91 | 1.00 | 0.88 | | | |
| Frt | | | | | | 0.850 | | | |
| Flt Protected | | | | | 0.950 | | | | |
| Satd. Flow (prot) | 3539 | 0 | 0 | 5085 | 1770 | 2787 | | | |
| Flt Permitted | | | | | 0.950 | | | | |
| Satd. Flow (perm) | 3539 | 0 | 0 | 5085 | 1770 | 2787 | | | |
| Right Turn on Red | | Yes | | | | Yes | | | |
| Satd. Flow (RTOR) | | | | | | 195 | | | |
| Link Speed (mph) | 30 | | | 30 | 30 | | | | |
| Link Distance (ft) | 148 | | | 388 | 582 | | | | |
| Travel Time (s) | 3.4 | | | 8.8 | 13.2 | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | | |
| Adj. Flow (vph) | 375 | 0 | 0 | 618 | 36 | 195 | | | |
| Shared Lane Traffic (%) | | | | | | | | | |
| Lane Group Flow (vph) | 375 | 0 | 0 | 618 | 36 | 195 | | | |
| Enter Blocked Intersection | No | No | No | No | No | No | | | |
| Lane Alignment | Left | Right | Left | Left | Left | Right | | | |
| Median Width(ft) | 12 | | | 12 | 12 | | | | |
| Link Offset(ft) | 0 | | | 0 | 0 | | | | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | | | | |
| Two way Left Turn Lane | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Turning Speed (mph) | | 9 | 15 | | 15 | 9 | | | |
| Number of Detectors | 2 | | | 2 | 1 | 1 | | | |
| Detector Template | Thru | | | Thru | Left | Right | | | |
| Leading Detector (ft) | 100 | | | 100 | 20 | 20 | | | |
| Trailing Detector (ft) | 0 | | | 0 | 0 | 0 | | | |
| Detector 1 Position(ft) | 0 | | | 0 | 0 | 0 | | | |
| Detector 1 Size(ft) | 6 | | | 6 | 20 | 20 | | | |
| Detector 1 Type | Cl+Ex | | | Cl+Ex | Cl+Ex | Cl+Ex | | | |
| Detector 1 Channel | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | | | 0.0 | 0.0 | 0.0 | | | |
| Detector 1 Queue (s) | 0.0 | | | 0.0 | 0.0 | 0.0 | | | |
| Detector 1 Delay (s) | 0.0 | | | 0.0 | 0.0 | 0.0 | | | |
| Detector 2 Position(ft) | 94 | | | 94 | | | | | |
| Detector 2 Size(ft) | 6 | | | 6 | | | | | |
| Detector 2 Type | Cl+Ex | | | Cl+Ex | | | | | |
| Detector 2 Channel | | | | | | | | | |
| Detector 2 Extend (s) | 0.0 | | | 0.0 | | | | | |
| Turn Type | NA | | | NA | Prot | Prot | | | |
| Protected Phases | 2 8 | | | 6 | 9 | 9 | 1 | 2 | 8 |
| Permitted Phases | | | | | | | | | |
| Detector Phase | 2 8 | | | 6 | 9 | 9 | | | |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | | | | 10.0 | 4.0 | 4.0 | 4.0 | 10.0 | 4.0 |



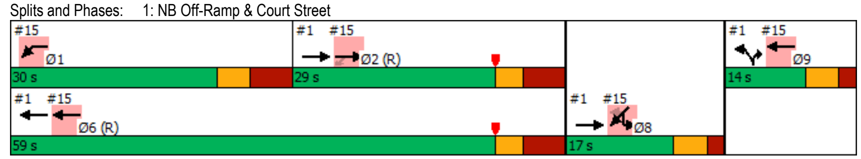


| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR | Ø1 | Ø2 | Ø8 |
|---|---|---|---|---|---|---|---|---|---|
| Minimum Split (s) | | | | 23.5 | 21.5 | 21.5 | 24.0 | 17.5 | 9.5 |
| Total Split (s) | | | | 59.0 | 14.0 | 14.0 | 30.0 | 29.0 | 17.0 |
| Total Split (%) | | | | 65.6% | 15.6% | 15.6% | 33% | 32% | 19% |
| Maximum Green (s) | | | | 51.5 | 8.5 | 8.5 | 22.0 | 21.5 | 11.5 |
| Yellow Time (s) | | | | 3.0 | 3.5 | 3.5 | 3.5 | 3.0 | 3.5 |
| All-Red Time (s) | | | | 4.5 | 2.0 | 2.0 | 4.5 | 4.5 | 2.0 |
| Lost Time Adjust (s) | | | | 0.0 | 0.0 | 0.0 | | | |
| Total Lost Time (s) | | | | 7.5 | 5.5 | 5.5 | | | |
| Lead/Lag | | | | | | | Lead | Lag | |
| Lead-Lag Optimize? | | | | | | | Yes | Yes | |
| Vehicle Extension (s) | | | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | | | | C-Max | Max | Max | None | C-Max | None |
| Walk Time (s) | | | | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 |
| Flash Dont Walk (s) | | | | 11.0 | 11.0 | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | | | 0 | 0 | 0 | | 0 | 0 |
| Act Effct Green (s) | 44.1 | | | 51.5 | 9.0 | 9.0 | | | |
| Actuated g/C Ratio | 0.49 | | | 0.57 | 0.10 | 0.10 | | | |
| v/c Ratio | 0.22 | | | 0.21 | 0.20 | 0.43 | | | |
| Control Delay | 7.3 | | | 7.8 | 40.8 | 9.2 | | | |
| Queue Delay | 0.9 | | | 0.0 | 9.0 | 0.0 | | | |
| Total Delay | 8.1 | | | 7.9 | 49.8 | 9.2 | | | |
| LOS | A | | | A | D | A | | | |
| Approach Delay | 8.1 | | | 7.9 | 15.6 | | | | |
| Approach LOS | A | | | A | B | | | | |

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 9.4 Intersection LOS: A
Intersection Capacity Utilization 49.0% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: NB Off-Ramp & Court Street



## Queues
### 1: NB Off-Ramp & Court Street
02/04/2019

| Lane Group | EBT | WBT | NBL | NBR |
|---|---|---|---|---|
| Lane Group Flow (vph) | 375 | 618 | 36 | 195 |
| v/c Ratio | 0.22 | 0.21 | 0.20 | 0.43 |
| Control Delay | 7.3 | 7.8 | 40.8 | 9.2 |
| Queue Delay | 0.9 | 0.0 | 9.0 | 0.0 |
| Total Delay | 8.1 | 7.9 | 49.8 | 9.2 |
| Queue Length 50th (ft) | 12 | 46 | 19 | 0 |
| Queue Length 95th (ft) | 44 | 60 | 49 | 34 |
| Internal Link Dist (ft) | 68 | 308 | 502 | |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 1753 | 2909 | 176 | 452 |
| Starvation Cap Reductn | 1070 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 641 | 111 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.55 | 0.27 | 0.55 | 0.43 |

Intersection Summary



## Lanes, Volumes, Timings
### 2: State Street/EB Off-Ramp
02/04/2019

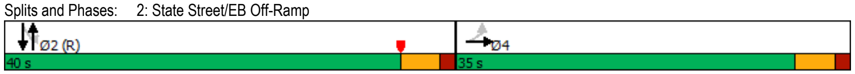
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 414 | 17 | 178 | 0 | 0 | 0 | 0 | 450 | 100 | 159 | 4 | 0 |
| Future Volume (vph) | 414 | 17 | 178 | 0 | 0 | 0 | 0 | 450 | 100 | 159 | 4 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 8 | 8 | 8 | 12 | 12 | 12 | 12 | 12 | 12 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.961 | | | | | | | 0.850 | | | |
| Flt Protected | | 0.967 | | | | | | | | | 0.953 | |
| Satd. Flow (prot) | 0 | 1742 | 0 | 0 | 0 | 0 | 0 | 1881 | 1583 | 0 | 1726 | 0 |
| Flt Permitted | | 0.967 | | | | | | | | | 0.332 | |
| Satd. Flow (perm) | 0 | 1742 | 0 | 0 | 0 | 0 | 0 | 1881 | 1583 | 0 | 601 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 33 | | | | | | | 109 | | | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 161 | | | 214 | | | 378 | | | 268 | |
| Travel Time (s) | | 3.7 | | | 4.9 | | | 8.6 | | | 6.1 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 2% | 0% | 0% | 0% | 0% | 0% | 0% | 1% | 2% | 5% | 0% | 0% |
| Adj. Flow (vph) | 450 | 18 | 193 | 0 | 0 | 0 | 0 | 489 | 109 | 173 | 4 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 661 | 0 | 0 | 0 | 0 | 0 | 489 | 109 | 0 | 177 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.20 | 1.20 | 1.20 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | | | | | 2 | 1 | 1 | 2 | |
| Detector Template | Left | Thru | | | | | | Thru | Right | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | | | | | 100 | 20 | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | | | | | 0 | 0 | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | | | | | 0 | 0 | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | | | | | 6 | 20 | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | | | | | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | | | | | NA | Perm | Perm | NA | |
| Protected Phases | | 4 | | | | | | 2 | | | 2 | |
| Permitted Phases | 4 | | | | | | | | 2 | 2 | | |
| Detector Phase | 4 | 4 | | | | | | 2 | 2 | 2 | 2 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | | | | | | 4.0 | 4.0 | 4.0 | 4.0 | |
| Minimum Split (s) | 9.0 | 9.0 | | | | | | 9.0 | 9.0 | 9.0 | 9.0 | |
| Total Split (s) | 35.0 | 35.0 | | | | | | 40.0 | 40.0 | 40.0 | 40.0 | |
| Total Split (%) | 46.7% | 46.7% | | | | | | 53.3% | 53.3% | 53.3% | 53.3% | |
| Maximum Green (s) | 30.0 | 30.0 | | | | | | 35.0 | 35.0 | 35.0 | 35.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | | | | | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.5 | 1.5 | | | | | | 1.5 | 1.5 | 1.5 | 1.5 | |
| Lost Time Adjust (s) | | 0.0 | | | | | | 0.0 | 0.0 | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | | | | 5.0 | 5.0 | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | | | | | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | None | | | | | | C-Max | C-Max | C-Max | C-Max | |
| Walk Time (s) | 5.0 | 5.0 | | | | | | | | | | |
| Flash Dont Walk (s) | 15.0 | 15.0 | | | | | | | | | | |
| Pedestrian Calls (#/hr) | 0 | 0 | | | | | | | | | | |
| Act Effct Green (s) | | 29.2 | | | | | | 35.8 | 35.8 | | 35.8 | |
| Actuated g/C Ratio | | 0.39 | | | | | | 0.48 | 0.48 | | 0.48 | |
| v/c Ratio | | 0.95 | | | | | | 0.55 | 0.13 | | 0.62 | |
| Control Delay | | 46.1 | | | | | | 11.2 | 1.2 | | 27.0 | |
| Queue Delay | | 0.0 | | | | | | 0.4 | 0.0 | | 0.0 | |
| Total Delay | | 46.1 | | | | | | 11.6 | 1.2 | | 27.0 | |
| LOS | | D | | | | | | B | A | | C | |
| Approach Delay | | 46.1 | | | | | | 9.7 | | | 27.0 | |
| Approach LOS | | D | | | | | | A | | | C | |

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 74.5 (99%), Referenced to phase 2:NBSB and 6:, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.95
Intersection Signal Delay: 28.6 Intersection LOS: C
Intersection Capacity Utilization 79.9% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 2: State Street/EB Off-Ramp








| Lane Group | EBT | NBT | NBR | SBT |
|---|---|---|---|---|
| Lane Group Flow (vph) | 661 | 489 | 109 | 177 |
| v/c Ratio | 0.95 | 0.55 | 0.13 | 0.62 |
| Control Delay | 46.1 | 11.2 | 1.2 | 27.0 |
| Queue Delay | 0.0 | 0.4 | 0.0 | 0.0 |
| Total Delay | 46.1 | 11.6 | 1.2 | 27.0 |
| Queue Length 50th (ft) | 272 | 85 | 0 | 59 |
| Queue Length 95th (ft) | #488 | 120 | 8 | #154 |
| Internal Link Dist (ft) | 81 | 298 | | 188 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 716 | 897 | 811 | 286 |
| Starvation Cap Reductn | 0 | 113 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.92 | 0.62 | 0.13 | 0.62 |

Intersection Summary

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 53 | 55 | 8 | 62 | 131 | 74 | 16 | 417 | 31 | 24 | 149 | 10 |
| Future Volume (vph) | 53 | 55 | 8 | 62 | 131 | 74 | 16 | 417 | 31 | 24 | 149 | 10 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 123 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.991 | | | 0.963 | | | 0.990 | | | 0.991 | |
| Flt Protected | | 0.978 | | | 0.988 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1782 | 0 | 0 | 1765 | 0 | 1805 | 1864 | 0 | 1805 | 1883 | 0 |
| Flt Permitted | | 0.674 | | | 0.902 | | 0.645 | | | 0.415 | | |
| Satd. Flow (perm) | 0 | 1228 | 0 | 0 | 1611 | 0 | 1226 | 1864 | 0 | 788 | 1883 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 6 | | | 31 | | | 7 | | | 6 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 187 | | | 726 | | | 313 | | | 378 | |
| Travel Time (s) | | 4.3 | | | 16.5 | | | 7.1 | | | 8.6 | |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| Heavy Vehicles (%) | 0% | 7% | 0% | 2% | 4% | 0% | 0% | 1% | 0% | 0% | 0% | 0% |
| Adj. Flow (vph) | 60 | 62 | 9 | 70 | 147 | 83 | 18 | 469 | 35 | 27 | 167 | 11 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 131 | 0 | 0 | 300 | 0 | 18 | 504 | 0 | 27 | 178 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 4 | | | 2 | | | 2 | |



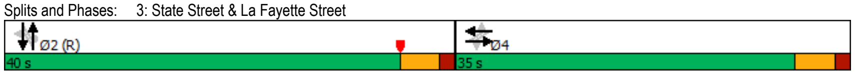


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Permitted Phases | 4 | | | 4 | | | 2 | | | 2 | | |
| Detector Phase | 4 | 4 | | 4 | 4 | | 2 | 2 | | 2 | 2 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Minimum Split (s) | 27.0 | 27.0 | | 27.0 | 27.0 | | 27.0 | 27.0 | | 27.0 | 27.0 | |
| Total Split (s) | 35.0 | 35.0 | | 35.0 | 35.0 | | 40.0 | 40.0 | | 40.0 | 40.0 | |
| Total Split (%) | 46.7% | 46.7% | | 46.7% | 46.7% | | 53.3% | 53.3% | | 53.3% | 53.3% | |
| Maximum Green (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 35.0 | 35.0 | | 35.0 | 35.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | None | None | | None | None | | C-Max | C-Max | | C-Max | C-Max | |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 15.0 | 15.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 18.6 | | | 18.6 | | 46.4 | 46.4 | | 46.4 | 46.4 | |
| Actuated g/C Ratio | | 0.25 | | | 0.25 | | 0.62 | 0.62 | | 0.62 | 0.62 | |
| v/c Ratio | | 0.43 | | | 0.71 | | 0.02 | 0.44 | | 0.06 | 0.15 | |
| Control Delay | | 25.2 | | | 31.7 | | 6.1 | 7.5 | | 12.4 | 12.0 | |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.3 | | 0.0 | 0.0 | |
| Total Delay | | 25.2 | | | 31.7 | | 6.1 | 7.8 | | 12.4 | 12.0 | |
| LOS | | C | | | C | | A | A | | B | B | |
| Approach Delay | | 25.2 | | | 31.7 | | | 7.8 | | | 12.1 | |
| Approach LOS | | C | | | C | | | A | | | B | |

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 4.5 (6%), Referenced to phase 2:NBSB and 6:, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 16.7 Intersection LOS: B
Intersection Capacity Utilization 48.2% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 3: State Street & La Fayette Street



| Lane Group | EBT | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 131 | 300 | 18 | 504 | 27 | 178 |
| v/c Ratio | 0.43 | 0.71 | 0.02 | 0.44 | 0.06 | 0.15 |
| Control Delay | 25.2 | 31.7 | 6.1 | 7.5 | 12.4 | 12.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 |
| Total Delay | 25.2 | 31.7 | 6.1 | 7.8 | 12.4 | 12.0 |
| Queue Length 50th (ft) | 49 | 115 | 3 | 90 | 7 | 56 |
| Queue Length 95th (ft) | 82 | 165 | m8 | 126 | m13 | m94 |
| Internal Link Dist (ft) | 107 | 646 | | 233 | | 298 |
| Turn Bay Length (ft) | | | 123 | | | |
| Base Capacity (vph) | 494 | 663 | 758 | 1156 | 487 | 1167 |
| Starvation Cap Reductn | 0 | 0 | 0 | 235 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.27 | 0.45 | 0.02 | 0.55 | 0.06 | 0.15 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 54 | 106 | 39 | 30 | 114 | 86 | 46 | 329 | 42 | 16 | 191 | 9 |
| Future Volume (vph) | 54 | 106 | 39 | 30 | 114 | 86 | 46 | 329 | 42 | 16 | 191 | 9 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 0 | | 0 | 114 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.974 | | | 0.950 | | | 0.983 | | | 0.993 | |
| Flt Protected | | 0.987 | | | 0.993 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1592 | 0 | 0 | 1559 | 0 | 1770 | 1831 | 0 | 1805 | 1869 | 0 |
| Flt Permitted | | 0.757 | | | 0.932 | | 0.611 | | | 0.459 | | |
| Satd. Flow (perm) | 0 | 1221 | 0 | 0 | 1463 | 0 | 1138 | 1831 | 0 | 872 | 1869 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 19 | | | 47 | | | 12 | | | 4 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 304 | | | 712 | | | 867 | | | 313 | |
| Travel Time (s) | | 6.9 | | | 16.2 | | | 19.7 | | | 7.1 | |
| Peak Hour Factor | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 |
| Heavy Vehicles (%) | 4% | 3% | 3% | 0% | 7% | 0% | 2% | 2% | 2% | 0% | 1% | 0% |
| Parking (#/hr) | | 0 | | | 0 | | | | | | | |
| Adj. Flow (vph) | 64 | 126 | 46 | 36 | 136 | 102 | 55 | 392 | 50 | 19 | 227 | 11 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 236 | 0 | 0 | 274 | 0 | 55 | 442 | 0 | 19 | 238 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 24 | | | 24 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.14 | 1.00 | 1.00 | 1.14 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |

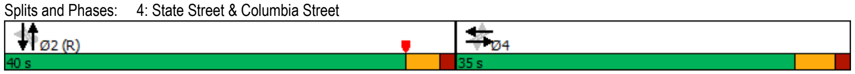
## Lanes, Volumes, Timings
## 4: State Street & Columbia Street

02/04/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Protected Phases | | 4 | | | 4 | | | 2 | | | 2 | |
| Permitted Phases | 4 | | | 4 | | | 2 | | | 2 | | |
| Detector Phase | 4 | 4 | | 4 | 4 | | 2 | 2 | | 2 | 2 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Minimum Split (s) | 9.0 | 9.0 | | 9.0 | 9.0 | | 8.5 | 8.5 | | 8.5 | 8.5 | |
| Total Split (s) | 35.0 | 35.0 | | 35.0 | 35.0 | | 40.0 | 40.0 | | 40.0 | 40.0 | |
| Total Split (%) | 46.7% | 46.7% | | 46.7% | 46.7% | | 53.3% | 53.3% | | 53.3% | 53.3% | |
| Maximum Green (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 35.5 | 35.5 | | 35.5 | 35.5 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | 4.5 | 4.5 | | 4.5 | 4.5 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | None | None | | None | None | | C-Max | C-Max | | C-Max | C-Max | |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 15.0 | 15.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 18.1 | | | 18.1 | | 47.4 | 47.4 | | 47.4 | 47.4 | |
| Actuated g/C Ratio | | 0.24 | | | 0.24 | | 0.63 | 0.63 | | 0.63 | 0.63 | |
| v/c Ratio | | 0.76 | | | 0.70 | | 0.08 | 0.38 | | 0.03 | 0.20 | |
| Control Delay | | 39.2 | | | 30.4 | | 7.8 | 9.1 | | 4.8 | 4.6 | |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | | 39.2 | | | 30.4 | | 7.8 | 9.1 | | 4.8 | 4.6 | |
| LOS | | D | | | C | | A | A | | A | A | |
| Approach Delay | | 39.2 | | | 30.4 | | | 8.9 | | | 4.6 | |
| Approach LOS | | D | | | C | | | A | | | A | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 75 | |
| Actuated Cycle Length: 75 | |
| Offset: 5 (7%), Referenced to phase 2:NBSB and 6:, Start of Yellow | |
| Natural Cycle: 40 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.76 | |
| Intersection Signal Delay: 18.4 | Intersection LOS: B |
| Intersection Capacity Utilization 54.8% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 4: State Street & Columbia Street






## Queues
## 4: State Street & Columbia Street

02/04/2019

| Lane Group | EBT | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 236 | 274 | 55 | 442 | 19 | 238 |
| v/c Ratio | 0.76 | 0.70 | 0.08 | 0.38 | 0.03 | 0.20 |
| Control Delay | 39.2 | 30.4 | 7.8 | 9.1 | 4.8 | 4.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 39.2 | 30.4 | 7.8 | 9.1 | 4.8 | 4.6 |
| Queue Length 50th (ft) | 94 | 96 | 9 | 85 | 3 | 36 |
| Queue Length 95th (ft) | 132 | 133 | 28 | 172 | m8 | 56 |
| Internal Link Dist (ft) | 224 | 632 | | 787 | | 233 |
| Turn Bay Length (ft) | | | | | 114 | |
| Base Capacity (vph) | 499 | 613 | 718 | 1160 | 550 | 1181 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 6 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.47 | 0.45 | 0.08 | 0.38 | 0.03 | 0.20 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | ↰ | ↑↱ | | ↰ | ↑↱ | | ↰ | ↱ | | ↰ | ↱ | |
| Traffic Volume (vph) | 142 | 335 | 142 | 52 | 412 | 86 | 77 | 149 | 28 | 53 | 168 | 68 |
| Future Volume (vph) | 142 | 335 | 142 | 52 | 412 | 86 | 77 | 149 | 28 | 53 | 168 | 68 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 153 | | 0 | 350 | | 0 | 165 | | 0 | 167 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.955 | | | 0.974 | | | 0.976 | | | 0.957 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 3360 | 0 | 1805 | 3487 | 0 | 1805 | 1825 | 0 | 1770 | 1805 | 0 |
| Flt Permitted | 0.345 | | | 0.450 | | | 0.492 | | | 0.584 | | |
| Satd. Flow (perm) | 643 | 3360 | 0 | 855 | 3487 | 0 | 935 | 1825 | 0 | 1088 | 1805 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 87 | | | 28 | | | 11 | | | 24 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 388 | | | 720 | | | 284 | | | 867 | |
| Travel Time (s) | | 8.8 | | | 16.4 | | | 6.5 | | | 19.7 | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 2% | 2% | 4% | 0% | 1% | 0% | 0% | 1% | 5% | 2% | 1% | 0% |
| Adj. Flow (vph) | 158 | 372 | 158 | 58 | 458 | 96 | 86 | 166 | 31 | 59 | 187 | 76 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 158 | 530 | 0 | 58 | 554 | 0 | 86 | 197 | 0 | 59 | 263 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | pm+pt | NA | | pm+pt | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |



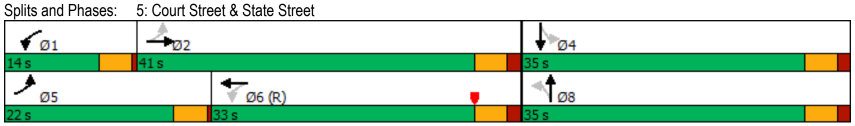


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Permitted Phases | 2 | | | 6 | | | 8 | | | 4 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 8 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 6.0 | | 4.0 | 10.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 8.0 | 23.0 | | 8.0 | 23.0 | | 30.0 | 30.0 | | 30.0 | 30.0 | |
| Total Split (s) | 22.0 | 41.0 | | 14.0 | 33.0 | | 35.0 | 35.0 | | 35.0 | 35.0 | |
| Total Split (%) | 24.4% | 45.6% | | 15.6% | 36.7% | | 38.9% | 38.9% | | 38.9% | 38.9% | |
| Maximum Green (s) | 18.0 | 36.0 | | 10.0 | 28.0 | | 30.0 | 30.0 | | 30.0 | 30.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 0.5 | 1.5 | | 0.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.0 | 5.0 | | 4.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | None | None | | None | C-Max | | Max | Max | | Max | Max | |
| Walk Time (s) | | 4.0 | | | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Flash Dont Walk (s) | | 14.0 | | | 14.0 | | 21.0 | 21.0 | | 21.0 | 21.0 | |
| Pedestrian Calls (#/hr) | | 0 | | | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | 50.1 | 41.1 | | 44.4 | 36.6 | | 30.0 | 30.0 | | 30.0 | 30.0 | |
| Actuated g/C Ratio | 0.56 | 0.46 | | 0.49 | 0.41 | | 0.33 | 0.33 | | 0.33 | 0.33 | |
| v/c Ratio | 0.33 | 0.34 | | 0.12 | 0.39 | | 0.28 | 0.32 | | 0.16 | 0.43 | |
| Control Delay | 12.7 | 14.9 | | 9.7 | 19.1 | | 25.1 | 22.9 | | 22.8 | 23.7 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 12.7 | 14.9 | | 9.7 | 19.1 | | 25.1 | 22.9 | | 22.8 | 23.7 | |
| LOS | B | B | | A | B | | C | C | | C | C | |
| Approach Delay | | 14.4 | | | 18.2 | | | 23.5 | | | 23.5 | |
| Approach LOS | | B | | | B | | | C | | | C | |

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 3 (3%), Referenced to phase 6:WBTL, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.43
Intersection Signal Delay: 18.5 Intersection LOS: B
Intersection Capacity Utilization 55.8% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 5: Court Street & State Street



## Queues
## 5: Court Street & State Street

02/04/2019

| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 158 | 530 | 58 | 554 | 86 | 197 | 59 | 263 |
| v/c Ratio | 0.33 | 0.34 | 0.12 | 0.39 | 0.28 | 0.32 | 0.16 | 0.43 |
| Control Delay | 12.7 | 14.9 | 9.7 | 19.1 | 25.1 | 22.9 | 22.8 | 23.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 12.7 | 14.9 | 9.7 | 19.1 | 25.1 | 22.9 | 22.8 | 23.7 |
| Queue Length 50th (ft) | 47 | 80 | 14 | 107 | 36 | 78 | 23 | 104 |
| Queue Length 95th (ft) | 75 | 102 | 30 | 158 | 75 | 134 | 53 | 173 |
| Internal Link Dist (ft) | | 308 | | 640 | | 204 | | 787 |
| Turn Bay Length (ft) | 153 | | 350 | | 165 | | 167 | |
| Base Capacity (vph) | 589 | 1582 | 558 | 1436 | 311 | 615 | 362 | 617 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.27 | 0.34 | 0.10 | 0.39 | 0.28 | 0.32 | 0.16 | 0.43 |

Intersection Summary



## Lanes, Volumes, Timings
## 6: Cornelia Street/Cornelia St & 5S

02/04/2019

| Lane Group | EBT | EBR | WBT | WBR | NBL | NBT | NBR | SBT | SBR2 | NER | NER2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 866 | 14 | 1146 | 2 | 76 | 16 | 18 | 16 | 186 | 258 | 7 |
| Future Volume (vph) | 866 | 14 | 1146 | 2 | 76 | 16 | 18 | 16 | 186 | 258 | 7 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | | 0 | | 0 | 0 | | 0 | | | 0 | |
| Storage Lanes | | 0 | | 0 | 0 | | 0 | | | 1 | |
| Taper Length (ft) | | | | | 25 | | | | | | |
| Lane Util. Factor | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.998 | | | | | 0.978 | | 0.876 | | 0.865 | |
| Flt Protected | | | | | | 0.967 | | | | | |
| Satd. Flow (prot) | 3492 | 0 | 3539 | 0 | 0 | 1797 | 0 | 1634 | 0 | 1591 | 0 |
| Flt Permitted | | | | | | 0.438 | | | | | |
| Satd. Flow (perm) | 3492 | 0 | 3539 | 0 | 0 | 814 | 0 | 1634 | 0 | 1591 | 0 |
| Right Turn on Red | | | | Yes | | | No | | Yes | | No |
| Satd. Flow (RTOR) | | | | | | | | 107 | | | |
| Link Speed (mph) | 30 | | 30 | | | 30 | | 30 | | | |
| Link Distance (ft) | 284 | | 699 | | | 468 | | 334 | | | |
| Travel Time (s) | 6.5 | | 15.9 | | | 10.6 | | 7.6 | | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 3% | 14% | 2% | 0% | 0% | 0% | 0% | 0% | 2% | 3% | 14% |
| Adj. Flow (vph) | 962 | 16 | 1273 | 2 | 84 | 18 | 20 | 18 | 207 | 287 | 8 |
| Shared Lane Traffic (%) | | | | | | | | | | | |
| Lane Group Flow (vph) | 978 | 0 | 1275 | 0 | 0 | 122 | 0 | 225 | 0 | 295 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left | Right | Left | Right | Right | Right |
| Median Width(ft) | 12 | | 12 | | | 0 | | 0 | | | |
| Link Offset(ft) | 0 | | 0 | | | 0 | | 0 | | | |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 | | 16 | | | |
| Two way Left Turn Lane | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | | 9 | | 9 | 15 | | 9 | | 9 | 9 | 9 |
| Number of Detectors | 2 | | 2 | | 1 | 2 | | 2 | | 1 | |
| Detector Template | Thru | | Thru | | Left | Thru | | Thru | | Right | |
| Leading Detector (ft) | 100 | | 100 | | 20 | 100 | | 100 | | 20 | |
| Trailing Detector (ft) | 0 | | 0 | | 0 | 0 | | 0 | | 0 | |
| Detector 1 Position(ft) | 0 | | 0 | | 0 | 0 | | 0 | | 0 | |
| Detector 1 Size(ft) | 6 | | 6 | | 20 | 6 | | 6 | | 20 | |
| Detector 1 Type | Cl+Ex | | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | | 0.0 | | 0.0 | 0.0 | | 0.0 | | 0.0 | |
| Detector 1 Queue (s) | 0.0 | | 0.0 | | 0.0 | 0.0 | | 0.0 | | 0.0 | |
| Detector 1 Delay (s) | 0.0 | | 0.0 | | 0.0 | 0.0 | | 0.0 | | 0.0 | |
| Detector 2 Position(ft) | 94 | | 94 | | | 94 | | 94 | | | |
| Detector 2 Size(ft) | 6 | | 6 | | | 6 | | 6 | | | |
| Detector 2 Type | Cl+Ex | | Cl+Ex | | | Cl+Ex | | Cl+Ex | | | |
| Detector 2 Channel | | | | | | | | | | | |
| Detector 2 Extend (s) | 0.0 | | 0.0 | | | 0.0 | | 0.0 | | | |
| Turn Type | NA | | NA | | Perm | NA | | NA | | Prot | |
| Protected Phases | 2 | | 6 | | | 4 | | 8 | | 1 | |

| Lane Group | EBT | EBR | WBT | WBR | NBL | NBT | NBR | SBT | SBR2 | NER | NER2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Permitted Phases | | | | | 4 | | | | | | |
| Detector Phase | 2 | | 6 | | 4 | 4 | | 8 | | 1 | |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 12.0 | | 12.0 | | 6.0 | 6.0 | | 6.0 | | 6.0 | |
| Minimum Split (s) | 17.0 | | 17.0 | | 11.0 | 11.0 | | 11.0 | | 11.0 | |
| Total Split (s) | 51.0 | | 85.0 | | 25.0 | 25.0 | | 25.0 | | 34.0 | |
| Total Split (%) | 46.4% | | 77.3% | | 22.7% | 22.7% | | 22.7% | | 30.9% | |
| Maximum Green (s) | 46.0 | | 80.0 | | 20.0 | 20.0 | | 20.0 | | 29.0 | |
| Yellow Time (s) | 3.5 | | 3.5 | | 3.5 | 3.5 | | 3.5 | | 3.5 | |
| All-Red Time (s) | 1.5 | | 1.5 | | 1.5 | 1.5 | | 1.5 | | 1.5 | |
| Lost Time Adjust (s) | 0.0 | | 0.0 | | | 0.0 | | 0.0 | | 0.0 | |
| Total Lost Time (s) | 5.0 | | 5.0 | | | 5.0 | | 5.0 | | 5.0 | |
| Lead/Lag | Lag | | | | | | | | | Lead | |
| Lead-Lag Optimize? | | | | | | | | | | | |
| Vehicle Extension (s) | 2.0 | | 2.0 | | 2.0 | 2.0 | | 2.0 | | 2.0 | |
| Recall Mode | C-Min | | C-Min | | None | None | | None | | None | |
| Act Effct Green (s) | 48.8 | | 77.7 | | | 22.3 | | 22.3 | | 23.9 | |
| Actuated g/C Ratio | 0.44 | | 0.71 | | | 0.20 | | 0.20 | | 0.22 | |
| v/c Ratio | 0.63 | | 0.51 | | | 0.74 | | 0.54 | | 0.86 | |
| Control Delay | 27.3 | | 4.2 | | | 67.6 | | 25.0 | | 63.9 | |
| Queue Delay | 0.0 | | 0.0 | | | 0.0 | | 0.0 | | 0.0 | |
| Total Delay | 27.3 | | 4.2 | | | 67.6 | | 25.0 | | 63.9 | |
| LOS | C | | A | | | E | | C | | E | |
| Approach Delay | 27.3 | | 4.2 | | | 67.6 | | 25.0 | | | |
| Approach LOS | C | | A | | | E | | C | | | |

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green, Master Intersection
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 22.4 Intersection LOS: C
Intersection Capacity Utilization 75.9% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 6: Cornelia Street/Cornelia St & 5S






| Lane Group | EBT | WBT | NBT | SBT | NER |
|---|---|---|---|---|---|
| Lane Group Flow (vph) | 978 | 1275 | 122 | 225 | 295 |
| v/c Ratio | 0.63 | 0.51 | 0.74 | 0.54 | 0.86 |
| Control Delay | 27.3 | 4.2 | 67.6 | 25.0 | 63.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 27.3 | 4.2 | 67.6 | 25.0 | 63.9 |
| Queue Length 50th (ft) | 297 | 33 | 80 | 69 | 199 |
| Queue Length 95th (ft) | 368 | 156 | #189 | 154 | 289 |
| Internal Link Dist (ft) | 204 | 619 | 388 | 254 | |
| Turn Bay Length (ft) | | | | | |
| Base Capacity (vph) | 1599 | 2599 | 171 | 428 | 419 |
| Starvation Cap Reductn | 0 | 33 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.61 | 0.50 | 0.71 | 0.53 | 0.70 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 7 | 102 | 11 | 17 | 236 | 26 | 26 | 75 | 21 | 5 | 17 | 15 |
| Future Volume (vph) | 7 | 102 | 11 | 17 | 236 | 26 | 26 | 75 | 21 | 5 | 17 | 15 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.987 | | | 0.987 | | | 0.977 | | | 0.945 | |
| Flt Protected | | 0.997 | | | 0.997 | | | 0.989 | | | 0.994 | |
| Satd. Flow (prot) | 0 | 1851 | 0 | 0 | 1825 | 0 | 0 | 1790 | 0 | 0 | 1606 | 0 |
| Flt Permitted | | 0.982 | | | 0.983 | | | 0.945 | | | 0.972 | |
| Satd. Flow (perm) | 0 | 1823 | 0 | 0 | 1800 | 0 | 0 | 1711 | 0 | 0 | 1571 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 12 | | | 12 | | | 21 | | | 16 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 726 | | | 620 | | | 330 | | | 468 | |
| Travel Time (s) | | 16.5 | | | 14.1 | | | 7.5 | | | 10.6 | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Heavy Vehicles (%) | 3% | 0% | 9% | 6% | 2% | 4% | 4% | 0% | 10% | 0% | 0% | 0% |
| Parking (#/hr) | | | | | | | | | | | 0 | |
| Adj. Flow (vph) | 7 | 109 | 12 | 18 | 251 | 28 | 28 | 80 | 22 | 5 | 18 | 16 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 128 | 0 | 0 | 297 | 0 | 0 | 130 | 0 | 0 | 39 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.14 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 4 | | | 2 | | | 2 | |
| Permitted Phases | 4 | | | 4 | | | 2 | | | 2 | | |
| Minimum Split (s) | 21.0 | 21.0 | | 21.0 | 21.0 | | 21.0 | 21.0 | | 21.0 | 21.0 | |
| Total Split (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 25.0 | 25.0 | | 25.0 | 25.0 | |
| Total Split (%) | 54.5% | 54.5% | | 54.5% | 54.5% | | 45.5% | 45.5% | | 45.5% | 45.5% | |
| Maximum Green (s) | 25.0 | 25.0 | | 25.0 | 25.0 | | 20.0 | 20.0 | | 20.0 | 20.0 | |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 25.0 | | | 25.0 | | | 20.0 | | | 20.0 | |
| Actuated g/C Ratio | | 0.45 | | | 0.45 | | | 0.36 | | | 0.36 | |
| v/c Ratio | | 0.15 | | | 0.36 | | | 0.20 | | | 0.07 | |
| Control Delay | | 8.6 | | | 10.9 | | | 11.3 | | | 7.9 | |

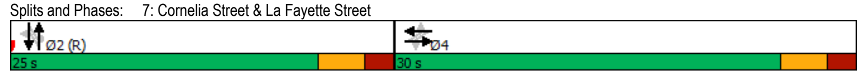




| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 8.6 | | | 10.9 | | | 11.3 | | | 7.9 | |
| LOS | | A | | | B | | | B | | | A | |
| Approach Delay | | 8.6 | | | 10.9 | | | 11.3 | | | 7.9 | |
| Approach LOS | | A | | | B | | | B | | | A | |

Intersection Summary
Area Type: Other
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 22 (40%), Referenced to phase 2:NBSB and 6:, Start of Green
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.36
Intersection Signal Delay: 10.3 Intersection LOS: B
Intersection Capacity Utilization 38.2% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 7: Cornelia Street & La Fayette Street



## Queues
## 7: Cornelia Street & La Fayette Street

02/04/2019

| Lane Group | EBT | WBT | NBT | SBT |
|---|---|---|---|---|
| Lane Group Flow (vph) | 128 | 297 | 130 | 39 |
| v/c Ratio | 0.15 | 0.36 | 0.20 | 0.07 |
| Control Delay | 8.6 | 10.9 | 11.3 | 7.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 8.6 | 10.9 | 11.3 | 7.9 |
| Queue Length 50th (ft) | 21 | 56 | 24 | 5 |
| Queue Length 95th (ft) | 46 | 104 | 54 | m12 |
| Internal Link Dist (ft) | 646 | 540 | 250 | 388 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 835 | 824 | 635 | 581 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.15 | 0.36 | 0.20 | 0.07 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



## Lanes, Volumes, Timings
## 8: Cornelia Street & Columbia Street

02/04/2019

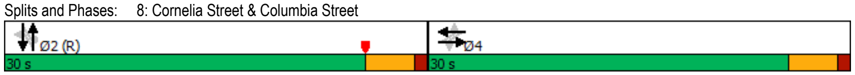
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 26 | 136 | 19 | 22 | 182 | 20 | 34 | 72 | 18 | 2 | 32 | 11 |
| Future Volume (vph) | 26 | 136 | 19 | 22 | 182 | 20 | 34 | 72 | 18 | 2 | 32 | 11 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.986 | | | 0.988 | | | 0.980 | | | 0.968 | |
| Flt Protected | | 0.993 | | | 0.995 | | | 0.986 | | | 0.997 | |
| Satd. Flow (prot) | 0 | 1786 | 0 | 0 | 1774 | 0 | 0 | 1811 | 0 | 0 | 1748 | 0 |
| Flt Permitted | | 0.931 | | | 0.958 | | | 0.922 | | | 0.991 | |
| Satd. Flow (perm) | 0 | 1675 | 0 | 0 | 1708 | 0 | 0 | 1693 | 0 | 0 | 1737 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 12 | | | 10 | | | 18 | | | 14 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 712 | | | 573 | | | 850 | | | 330 | |
| Travel Time (s) | | 16.2 | | | 13.0 | | | 19.3 | | | 7.5 | |
| Peak Hour Factor | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 |
| Heavy Vehicles (%) | 8% | 4% | 0% | 4% | 6% | 0% | 3% | 1% | 0% | 50% | 0% | 10% |
| Adj. Flow (vph) | 34 | 179 | 25 | 29 | 239 | 26 | 45 | 95 | 24 | 3 | 42 | 14 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 238 | 0 | 0 | 294 | 0 | 0 | 164 | 0 | 0 | 59 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 4 | | | 2 | | | 2 | |
| Permitted Phases | 4 | | | 4 | | | 2 | | | 2 | | |
| Minimum Split (s) | 20.5 | 20.5 | | 20.5 | 20.5 | | 20.5 | 20.5 | | 20.5 | 20.5 | |
| Total Split (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 30.0 | 30.0 | | 30.0 | 30.0 | |
| Total Split (%) | 50.0% | 50.0% | | 50.0% | 50.0% | | 50.0% | 50.0% | | 50.0% | 50.0% | |
| Maximum Green (s) | 25.5 | 25.5 | | 25.5 | 25.5 | | 25.5 | 25.5 | | 25.5 | 25.5 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 4.5 | | | 4.5 | | | 4.5 | | | 4.5 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 25.5 | | | 25.5 | | | 25.5 | | | 25.5 | |
| Actuated g/C Ratio | | 0.42 | | | 0.42 | | | 0.42 | | | 0.42 | |
| v/c Ratio | | 0.33 | | | 0.40 | | | 0.22 | | | 0.08 | |
| Control Delay | | 12.6 | | | 13.6 | | | 10.7 | | | 8.8 | |
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Delay | | 12.6 | | | 13.6 | | | 10.7 | | | 8.8 | |
| LOS | | B | | | B | | | B | | | A | |
| Approach Delay | | 12.6 | | | 13.6 | | | 10.7 | | | 8.8 | |
| Approach LOS | | B | | | B | | | B | | | A | |

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 15.5 (26%), Referenced to phase 2:NBSB and 6:, Start of Yellow
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.40
Intersection Signal Delay: 12.3 Intersection LOS: B
Intersection Capacity Utilization 35.5% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 8: Cornelia Street & Columbia Street








| Lane Group | EBT | WBT | NBT | SBT |
|---|---|---|---|---|
| Lane Group Flow (vph) | 238 | 294 | 164 | 59 |
| v/c Ratio | 0.33 | 0.40 | 0.22 | 0.08 |
| Control Delay | 12.6 | 13.6 | 10.7 | 8.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 12.6 | 13.6 | 10.7 | 8.8 |
| Queue Length 50th (ft) | 52 | 68 | 32 | 9 |
| Queue Length 95th (ft) | 78 | 97 | 53 | 22 |
| Internal Link Dist (ft) | 632 | 493 | 770 | 250 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 718 | 731 | 729 | 746 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.33 | 0.40 | 0.22 | 0.08 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 24 | 368 | 20 | 12 | 463 | 26 | 40 | 25 | 14 | 31 | 31 | 58 |
| Future Volume (vph) | 24 | 368 | 20 | 12 | 463 | 26 | 40 | 25 | 14 | 31 | 31 | 58 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.993 | | | 0.992 | | | 0.947 | | | 0.902 | |
| Flt Protected | | 0.997 | | | 0.999 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 3524 | 0 | 0 | 3545 | 0 | 1805 | 1799 | 0 | 1752 | 1714 | 0 |
| Flt Permitted | | 0.905 | | | 0.941 | | 0.690 | | | 0.728 | | |
| Satd. Flow (perm) | 0 | 3199 | 0 | 0 | 3339 | 0 | 1311 | 1799 | 0 | 1343 | 1714 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 8 | | | 9 | | | 16 | | | 67 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 720 | | | 199 | | | 282 | | | 850 | |
| Travel Time (s) | | 16.4 | | | 4.5 | | | 6.4 | | | 19.3 | |
| Peak Hour Factor | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 |
| Heavy Vehicles (%) | 9% | 1% | 0% | 0% | 1% | 0% | 0% | 0% | 0% | 3% | 0% | 0% |
| Adj. Flow (vph) | 28 | 428 | 23 | 14 | 538 | 30 | 47 | 29 | 16 | 36 | 36 | 67 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 479 | 0 | 0 | 582 | 0 | 47 | 45 | 0 | 36 | 103 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 4 | | | 2 | | | 2 | |
| Permitted Phases | 4 | | | 4 | | | 2 | | | 2 | | |
| Minimum Split (s) | 20.0 | 20.0 | | 20.0 | 20.0 | | 20.5 | 20.5 | | 20.5 | 20.5 | |
| Total Split (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 40.0 | 40.0 | | 40.0 | 40.0 | |
| Total Split (%) | 42.9% | 42.9% | | 42.9% | 42.9% | | 57.1% | 57.1% | | 57.1% | 57.1% | |
| Maximum Green (s) | 26.0 | 26.0 | | 26.0 | 26.0 | | 35.5 | 35.5 | | 35.5 | 35.5 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 0.5 | 0.5 | | 0.5 | 0.5 | | 1.0 | 1.0 | | 1.0 | 1.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | | 4.0 | | | 4.0 | | 4.5 | 4.5 | | 4.5 | 4.5 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 26.0 | | | 26.0 | | 35.5 | 35.5 | | 35.5 | 35.5 | |
| Actuated g/C Ratio | | 0.37 | | | 0.37 | | 0.51 | 0.51 | | 0.51 | 0.51 | |
| v/c Ratio | | 0.40 | | | 0.47 | | 0.07 | 0.05 | | 0.05 | 0.11 | |
| Control Delay | | 17.2 | | | 18.0 | | 9.2 | 6.6 | | 9.1 | 4.4 | |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |



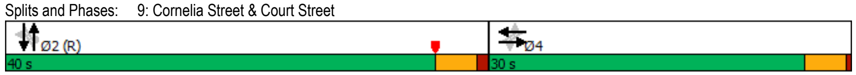


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Delay | | 17.2 | | | 18.0 | | 9.2 | 6.6 | | 9.1 | 4.4 | |
| LOS | | B | | | B | | A | A | | A | A | |
| Approach Delay | | 17.2 | | | 18.0 | | | 7.9 | | | 5.7 | |
| Approach LOS | | B | | | B | | | A | | | A | |

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 25.5 (36%), Referenced to phase 2:NBSB and 6:, Start of Yellow
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.47
Intersection Signal Delay: 15.7 Intersection LOS: B
Intersection Capacity Utilization 44.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 9: Cornelia Street & Court Street



| Lane Group | EBT | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 479 | 582 | 47 | 45 | 36 | 103 |
| v/c Ratio | 0.40 | 0.47 | 0.07 | 0.05 | 0.05 | 0.11 |
| Control Delay | 17.2 | 18.0 | 9.2 | 6.6 | 9.1 | 4.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 17.2 | 18.0 | 9.2 | 6.6 | 9.1 | 4.4 |
| Queue Length 50th (ft) | 76 | 96 | 10 | 6 | 7 | 7 |
| Queue Length 95th (ft) | 108 | 131 | 24 | 19 | 20 | 27 |
| Internal Link Dist (ft) | 640 | 119 | | 202 | | 770 |
| Turn Bay Length (ft) | | | | | | |
| Base Capacity (vph) | 1193 | 1245 | 664 | 920 | 681 | 902 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.40 | 0.47 | 0.07 | 0.05 | 0.05 | 0.11 |

Intersection Summary





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 64 | 1043 | 19 | 48 | 940 | 21 | 122 | 39 | 27 | 44 | 39 | 63 |
| Future Volume (vph) | 64 | 1043 | 19 | 48 | 940 | 21 | 122 | 39 | 27 | 44 | 39 | 63 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 100 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.997 | | | 0.997 | | | 0.938 | | | 0.907 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 3529 | 0 | 1770 | 3529 | 0 | 1770 | 1747 | 0 | 1770 | 1690 | 0 |
| Flt Permitted | 0.201 | | | 0.167 | | | 0.354 | | | 0.709 | | |
| Satd. Flow (perm) | 374 | 3529 | 0 | 311 | 3529 | 0 | 659 | 1747 | 0 | 1321 | 1690 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 3 | | | 3 | | | 30 | | | 57 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 699 | | | 306 | | | 523 | | | 508 | |
| Travel Time (s) | | 15.9 | | | 7.0 | | | 11.9 | | | 11.5 | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Adj. Flow (vph) | 71 | 1159 | 21 | 53 | 1044 | 23 | 136 | 43 | 30 | 49 | 43 | 70 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 71 | 1180 | 0 | 53 | 1067 | 0 | 136 | 73 | 0 | 49 | 113 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | | 4 | |
| Permitted Phases | 2 | | | 6 | | | 8 | | | 4 | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Detector Phase | 5 | 2 | | 1 | 6 | | 3 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 15.0 | | 6.0 | 15.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 11.0 | 20.0 | | 11.0 | 20.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Total Split (s) | 11.0 | 68.0 | | 11.0 | 68.0 | | 18.0 | 31.0 | | 13.0 | 13.0 | |
| Total Split (%) | 10.0% | 61.8% | | 10.0% | 61.8% | | 16.4% | 28.2% | | 11.8% | 11.8% | |
| Maximum Green (s) | 6.0 | 63.0 | | 6.0 | 63.0 | | 13.0 | 26.0 | | 8.0 | 8.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Lead/Lag | Lag | Lead | | Lag | Lead | | Lead | | | Lag | Lag | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 2.0 | 2.0 | | 3.0 | 3.0 | | 3.0 | 2.0 | | 2.0 | 2.0 | |
| Recall Mode | None | C-Min | | None | C-Min | | None | None | | None | None | |
| Act Effct Green (s) | 71.8 | 65.1 | | 70.4 | 64.4 | | 26.1 | 26.1 | | 9.0 | 9.0 | |
| Actuated g/C Ratio | 0.65 | 0.59 | | 0.64 | 0.59 | | 0.24 | 0.24 | | 0.08 | 0.08 | |
| v/c Ratio | 0.22 | 0.57 | | 0.19 | 0.52 | | 0.49 | 0.17 | | 0.45 | 0.59 | |
| Control Delay | 2.5 | 4.6 | | 17.8 | 28.2 | | 39.4 | 20.4 | | 60.5 | 38.2 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 2.5 | 4.6 | | 17.8 | 28.2 | | 39.4 | 20.4 | | 60.5 | 38.2 | |
| LOS | A | A | | B | C | | D | C | | E | D | |
| Approach Delay | | 4.4 | | | 27.7 | | | 32.8 | | | 44.9 | |
| Approach LOS | | A | | | C | | | C | | | D | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 110 | |
| Actuated Cycle Length: 110 | |
| Offset: 7 (6%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.59 | |
| Intersection Signal Delay: 18.5 | Intersection LOS: B |
| Intersection Capacity Utilization 60.4% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 10: Broadway & 5S






| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 71 | 1180 | 53 | 1067 | 136 | 73 | 49 | 113 |
| v/c Ratio | 0.22 | 0.57 | 0.19 | 0.52 | 0.49 | 0.17 | 0.45 | 0.59 |
| Control Delay | 2.5 | 4.6 | 17.8 | 28.2 | 39.4 | 20.4 | 60.5 | 38.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 2.5 | 4.6 | 17.8 | 28.2 | 39.4 | 20.4 | 60.5 | 38.2 |
| Queue Length 50th (ft) | 1 | 43 | 17 | 338 | 80 | 24 | 34 | 38 |
| Queue Length 95th (ft) | m11 | 120 | 38 | 443 | 124 | 56 | 71 | 93 |
| Internal Link Dist (ft) | | 619 | | 226 | | 443 | | 428 |
| Turn Bay Length (ft) | 100 | | | | | | | |
| Base Capacity (vph) | 328 | 2160 | 279 | 2159 | 294 | 470 | 116 | 200 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.22 | 0.55 | 0.19 | 0.49 | 0.46 | 0.16 | 0.42 | 0.56 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 8 | 130 | 4 | 19 | 221 | 27 | 10 | 147 | 39 | 8 | 36 | 21 |
| Future Volume (vph) | 8 | 130 | 4 | 19 | 221 | 27 | 10 | 147 | 39 | 8 | 36 | 21 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.996 | | | 0.986 | | | 0.973 | | | 0.957 | |
| Flt Protected | | 0.997 | | | 0.996 | | | 0.997 | | | 0.994 | |
| Satd. Flow (prot) | 0 | 1616 | 0 | 0 | 1613 | 0 | 0 | 1591 | 0 | 0 | 1543 | 0 |
| Flt Permitted | | 0.979 | | | 0.975 | | | 0.986 | | | 0.957 | |
| Satd. Flow (perm) | 0 | 1587 | 0 | 0 | 1579 | 0 | 0 | 1573 | 0 | 0 | 1485 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 3 | | | 14 | | | 22 | | | 26 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 620 | | | 346 | | | 316 | | | 523 | |
| Travel Time (s) | | 14.1 | | | 7.9 | | | 7.2 | | | 11.9 | |
| Peak Hour Factor | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| Heavy Vehicles (%) | 25% | 4% | 0% | 17% | 3% | 4% | 0% | 2% | 14% | 0% | 4% | 10% |
| Parking (#/hr) | | 0 | | | 0 | | | 0 | | | 0 | |
| Adj. Flow (vph) | 10 | 163 | 5 | 24 | 276 | 34 | 13 | 184 | 49 | 10 | 45 | 26 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 178 | 0 | 0 | 334 | 0 | 0 | 246 | 0 | 0 | 81 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.14 | 1.00 | 1.00 | 1.14 | 1.00 | 1.00 | 1.14 | 1.00 | 1.00 | 1.14 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 4 | | | 2 | | | 2 | |
| Permitted Phases | 4 | | | 4 | | | 2 | | | 2 | | |
| Minimum Split (s) | 21.0 | 21.0 | | 21.0 | 21.0 | | 21.0 | 21.0 | | 21.0 | 21.0 | |
| Total Split (s) | 35.0 | 35.0 | | 35.0 | 35.0 | | 25.0 | 25.0 | | 25.0 | 25.0 | |
| Total Split (%) | 58.3% | 58.3% | | 58.3% | 58.3% | | 41.7% | 41.7% | | 41.7% | 41.7% | |
| Maximum Green (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 20.0 | 20.0 | | 20.0 | 20.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 30.0 | | | 30.0 | | | 20.0 | | | 20.0 | |
| Actuated g/C Ratio | | 0.50 | | | 0.50 | | | 0.33 | | | 0.33 | |
| v/c Ratio | | 0.22 | | | 0.42 | | | 0.46 | | | 0.16 | |
| Control Delay | | 9.2 | | | 11.1 | | | 17.6 | | | 11.4 | |



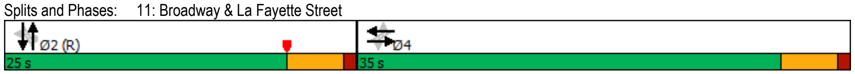


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 9.2 | | | 11.1 | | | 17.6 | | | 11.4 | |
| LOS | | A | | | B | | | B | | | B | |
| Approach Delay | | 9.2 | | | 11.1 | | | 17.6 | | | 11.4 | |
| Approach LOS | | A | | | B | | | B | | | B | |

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 20 (33%), Referenced to phase 2:NBSB and 6:, Start of Yellow
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.46
Intersection Signal Delay: 12.6 Intersection LOS: B
Intersection Capacity Utilization 39.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 11: Broadway & La Fayette Street



## Queues
## 11: Broadway & La Fayette Street

02/04/2019

| Lane Group | EBT | WBT | NBT | SBT |
|---|---|---|---|---|
| Lane Group Flow (vph) | 178 | 334 | 246 | 81 |
| v/c Ratio | 0.22 | 0.42 | 0.46 | 0.16 |
| Control Delay | 9.2 | 11.1 | 17.6 | 11.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 9.2 | 11.1 | 17.6 | 11.4 |
| Queue Length 50th (ft) | 33 | 67 | 62 | 14 |
| Queue Length 95th (ft) | 55 | 102 | 101 | 34 |
| Internal Link Dist (ft) | 540 | 266 | 236 | 443 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 795 | 796 | 539 | 512 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.22 | 0.42 | 0.46 | 0.16 |

Intersection Summary



## Lanes, Volumes, Timings
## 12: Broadway & Columbia Street

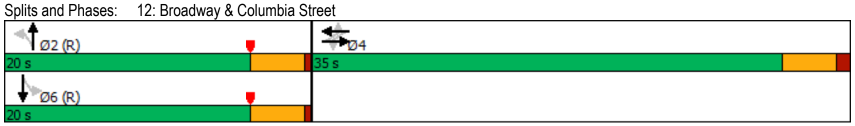
02/04/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 23 | 133 | 6 | 18 | 178 | 60 | 32 | 120 | 50 | 8 | 39 | 13 |
| Future Volume (vph) | 23 | 133 | 6 | 18 | 178 | 60 | 32 | 120 | 50 | 8 | 39 | 13 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.995 | | | 0.968 | | | 0.966 | | | 0.971 | |
| Flt Protected | | 0.993 | | | 0.996 | | | 0.992 | | | 0.993 | |
| Satd. Flow (prot) | 0 | 1821 | 0 | 0 | 1774 | 0 | 0 | 1791 | 0 | 0 | 1709 | 0 |
| Flt Permitted | | 0.932 | | | 0.975 | | | 0.946 | | | 0.950 | |
| Satd. Flow (perm) | 0 | 1709 | 0 | 0 | 1737 | 0 | 0 | 1708 | 0 | 0 | 1635 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 6 | | | 45 | | | 30 | | | 17 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 573 | | | 718 | | | 969 | | | 316 | |
| Travel Time (s) | | 13.0 | | | 16.3 | | | 22.0 | | | 7.2 | |
| Peak Hour Factor | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 |
| Heavy Vehicles (%) | 16% | 1% | 0% | 0% | 4% | 2% | 0% | 2% | 2% | 12% | 3% | 17% |
| Parking (#/hr) | 0 | | | | | | | | | | | |
| Adj. Flow (vph) | 31 | 177 | 8 | 24 | 237 | 80 | 43 | 160 | 67 | 11 | 52 | 17 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 216 | 0 | 0 | 341 | 0 | 0 | 270 | 0 | 0 | 80 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 4 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 4 | | | 2 | | | 6 | | |
| Minimum Split (s) | 20.5 | 20.5 | | 20.5 | 20.5 | | 20.0 | 20.0 | | 20.0 | 20.0 | |
| Total Split (s) | 35.0 | 35.0 | | 35.0 | 35.0 | | 20.0 | 20.0 | | 20.0 | 20.0 | |
| Total Split (%) | 63.6% | 63.6% | | 63.6% | 63.6% | | 36.4% | 36.4% | | 36.4% | 36.4% | |
| Maximum Green (s) | 30.5 | 30.5 | | 30.5 | 30.5 | | 16.0 | 16.0 | | 16.0 | 16.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 0.5 | 0.5 | | 0.5 | 0.5 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 4.5 | | | 4.5 | | | 4.0 | | | 4.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 30.5 | | | 30.5 | | | 16.0 | | | 16.0 | |
| Actuated g/C Ratio | | 0.55 | | | 0.55 | | | 0.29 | | | 0.29 | |
| v/c Ratio | | 0.23 | | | 0.35 | | | 0.52 | | | 0.16 | |
| Control Delay | | 6.8 | | | 7.0 | | | 18.7 | | | 13.1 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 6.8 | | | 7.0 | | | 18.7 | | | 13.1 | |
| LOS | | A | | | A | | | B | | | B | |
| Approach Delay | | 6.8 | | | 7.0 | | | 18.7 | | | 13.1 | |
| Approach LOS | | A | | | A | | | B | | | B | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 55 | |
| Actuated Cycle Length: 55 | |
| Offset: 53 (96%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow | |
| Natural Cycle: 45 | |
| Control Type: Pretimed | |
| Maximum v/c Ratio: 0.52 | |
| Intersection Signal Delay: 11.0 | Intersection LOS: B |
| Intersection Capacity Utilization 38.9% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 12: Broadway & Columbia Street








| Lane Group | EBT | WBT | NBT | SBT |
|---|---|---|---|---|
| Lane Group Flow (vph) | 216 | 341 | 270 | 80 |
| v/c Ratio | 0.23 | 0.35 | 0.52 | 0.16 |
| Control Delay | 6.8 | 7.0 | 18.7 | 13.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 6.8 | 7.0 | 18.7 | 13.1 |
| Queue Length 50th (ft) | 31 | 46 | 64 | 15 |
| Queue Length 95th (ft) | 48 | 66 | 97 | 33 |
| Internal Link Dist (ft) | 493 | 638 | 889 | 236 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 950 | 983 | 518 | 487 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.23 | 0.35 | 0.52 | 0.16 |

Intersection Summary

| Lane Group | SBL | SBR | SEL | SET | NWT | NWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 52 | 81 | 71 | 345 | 391 | 34 |
| Future Volume (vph) | 52 | 81 | 71 | 345 | 391 | 34 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 |
| Frt | 0.918 | | | | 0.988 | |
| Flt Protected | 0.981 | | | 0.992 | | |
| Satd. Flow (prot) | 1528 | 0 | 0 | 3488 | 3526 | 0 |
| Flt Permitted | 0.981 | | | 0.992 | | |
| Satd. Flow (perm) | 1528 | 0 | 0 | 3488 | 3526 | 0 |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 969 | | | 262 | 183 | |
| Travel Time (s) | 22.0 | | | 6.0 | 4.2 | |
| Peak Hour Factor | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 |
| Heavy Vehicles (%) | 2% | 0% | 1% | 3% | 1% | 3% |
| Parking (#/hr) | 0 | | | | | |
| Adj. Flow (vph) | 63 | 98 | 86 | 416 | 471 | 41 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 161 | 0 | 0 | 502 | 512 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 12 | | | 0 | 0 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.14 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Sign Control | Stop | | | Free | Free | |

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 41.3% ICU Level of Service A

Analysis Period (min) 15





| Intersection | |
|---|---|
| Int Delay, s/veh | 3.2 |

| Movement | SBL | SBR | SEL | SET | NWT | NWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 52 | 81 | 71 | 345 | 391 | 34 |
| Future Vol, veh/h | 52 | 81 | 71 | 345 | 391 | 34 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 83 | 83 | 83 | 83 | 83 | 83 |
| Heavy Vehicles, % | 2 | 0 | 1 | 3 | 1 | 3 |
| Mvmt Flow | 63 | 98 | 86 | 416 | 471 | 41 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 872 | 256 | 512 | 0 | - | 0 |
| Stage 1 | 492 | - | - | - | - | - |
| Stage 2 | 380 | - | - | - | - | - |
| Critical Hdwy | 6.84 | 6.9 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.84 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.84 | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 3.3 | 2.21 | - | - | - |
| Pot Cap-1 Maneuver | 290 | 749 | 1057 | - | - | - |
| Stage 1 | 580 | - | - | - | - | - |
| Stage 2 | 661 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 259 | 749 | 1057 | - | - | - |
| Mov Cap-2 Maneuver | 259 | - | - | - | - | - |
| Stage 1 | 519 | - | - | - | - | - |
| Stage 2 | 661 | - | - | - | - | - |

| Approach | SB | SE | NW |
|---|---|---|---|
| HCM Control Delay, s | 18.2 | 1.7 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NWT | NWR | SEL | SET | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 1057 | - | 431 |
| HCM Lane V/C Ratio | - | - | 0.081 | - | 0.372 |
| HCM Control Delay (s) | - | - | 8.7 | 0.3 | 18.2 |
| HCM Lane LOS | - | - | A | A | C |
| HCM 95th %tile Q(veh) | - | - | 0.3 | - | 1.7 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 1118 | 4 | 0 | 976 | 1 | 0 | 0 | 24 | 0 | 0 | 16 |
| Future Volume (vph) | 0 | 1118 | 4 | 0 | 976 | 1 | 0 | 0 | 24 | 0 | 0 | 16 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 100 | | 0 | 100 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 1 | 0 | | 0 | 0 | | 1 | 0 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | | | | | | | 0.865 | | | 0.865 |
| Flt Protected | | | | | | | | | | | | |
| Satd. Flow (prot) | 0 | 3539 | 0 | 0 | 3539 | 0 | 0 | 0 | 1611 | 0 | 0 | 1611 |
| Flt Permitted | | | | | | | | | | | | |
| Satd. Flow (perm) | 0 | 3539 | 0 | 0 | 3539 | 0 | 0 | 0 | 1611 | 0 | 0 | 1611 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 306 | | | 333 | | | 475 | | | 317 | |
| Travel Time (s) | | 7.0 | | | 7.6 | | | 10.8 | | | 7.2 | |
| Confl. Peds. (#/hr) | | | | | | | 15 | | | | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Adj. Flow (vph) | 0 | 1242 | 4 | 0 | 1084 | 1 | 0 | 0 | 27 | 0 | 0 | 18 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1246 | 0 | 0 | 1085 | 0 | 0 | 0 | 27 | 0 | 0 | 18 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Sign Control | | Free | | | Free | | | Yield | | | Yield | |

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 41.0% ICU Level of Service A
Analysis Period (min) 15





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 179 | 76 | 376 | 227 | 0 | 0 | 0 | 0 | 260 | 78 | 10 |
| Future Volume (vph) | 0 | 179 | 76 | 376 | 227 | 0 | 0 | 0 | 0 | 260 | 78 | 10 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 0.97 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 |
| Frt | | | 0.850 | | | | | | | | | 0.850 |
| Flt Protected | | | | 0.950 | | | | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 3539 | 1583 | 3433 | 1863 | 0 | 0 | 0 | 0 | 3433 | 1863 | 1583 |
| Flt Permitted | | | | 0.950 | | | | | | 0.950 | | |
| Satd. Flow (perm) | 0 | 3539 | 1583 | 3433 | 1863 | 0 | 0 | 0 | 0 | 3433 | 1863 | 1583 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 194 | | | | | | | | | 218 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 239 | | | 148 | | | 438 | | | 312 | |
| Travel Time (s) | | 5.4 | | | 3.4 | | | 10.0 | | | 7.1 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 0 | 195 | 83 | 409 | 247 | 0 | 0 | 0 | 0 | 283 | 85 | 11 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 195 | 83 | 409 | 247 | 0 | 0 | 0 | 0 | 283 | 85 | 11 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 24 | | | 24 | | | 24 | | | 24 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | | 2 | 1 | 1 | 2 | | | | | 1 | 2 | 1 |
| Detector Template | | Thru | Right | Left | Thru | | | | | Left | Thru | Right |
| Leading Detector (ft) | | 100 | 20 | 20 | 100 | | | | | 20 | 100 | 20 |
| Trailing Detector (ft) | | 0 | 0 | 0 | 0 | | | | | 0 | 0 | 0 |
| Detector 1 Position(ft) | | 0 | 0 | 0 | 0 | | | | | 0 | 0 | 0 |
| Detector 1 Size(ft) | | 6 | 20 | 20 | 6 | | | | | 20 | 6 | 20 |
| Detector 1 Type | | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | | | | | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | | 0.0 | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | | 0.0 | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | | 0.0 | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(ft) | | 94 | | | 94 | | | | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | | | 0.0 | |
| Turn Type | | NA | Perm | Prot | NA | | | | | Split | NA | Perm |
| Protected Phases | | 2 | | 1 | 6 9 | | | | | 8 | 8 | |
| Permitted Phases | | | 2 | | | | | | | | | 8 |
| Detector Phase | | 2 | 2 | 1 | 6 9 | | | | | 8 | 8 | 8 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | 10.0 | 10.0 | 4.0 | | | | | | 4.0 | 4.0 | 4.0 |

| Lane Group | Ø6 | Ø9 |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | | |
| Future Volume (vph) | | |
| Ideal Flow (vphpl) | | |
| Lane Util. Factor | | |
| Frt | | |
| Flt Protected | | |
| Satd. Flow (prot) | | |
| Flt Permitted | | |
| Satd. Flow (perm) | | |
| Right Turn on Red | | |
| Satd. Flow (RTOR) | | |
| Link Speed (mph) | | |
| Link Distance (ft) | | |
| Travel Time (s) | | |
| Peak Hour Factor | | |
| Adj. Flow (vph) | | |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | | |
| Enter Blocked Intersection | | |
| Lane Alignment | | |
| Median Width(ft) | | |
| Link Offset(ft) | | |
| Crosswalk Width(ft) | | |
| Two way Left Turn Lane | | |
| Headway Factor | | |
| Turning Speed (mph) | | |
| Number of Detectors | | |
| Detector Template | | |
| Leading Detector (ft) | | |
| Trailing Detector (ft) | | |
| Detector 1 Position(ft) | | |
| Detector 1 Size(ft) | | |
| Detector 1 Type | | |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | | |
| Detector 1 Queue (s) | | |
| Detector 1 Delay (s) | | |
| Detector 2 Position(ft) | | |
| Detector 2 Size(ft) | | |
| Detector 2 Type | | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | | |
| Turn Type | | |
| Protected Phases | 6 | 9 |
| Permitted Phases | | |
| Detector Phase | | |
| Switch Phase | | |
| Minimum Initial (s) | 10.0 | 4.0 |

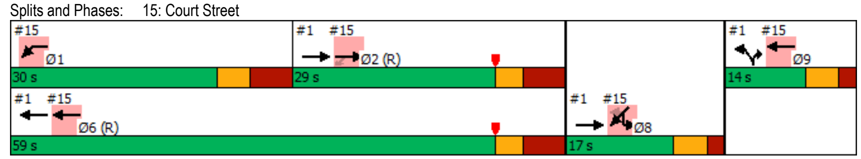




| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Split (s) | | 17.5 | 17.5 | 24.0 | | | | | | 9.5 | 9.5 | 9.5 |
| Total Split (s) | | 29.0 | 29.0 | 30.0 | | | | | | 17.0 | 17.0 | 17.0 |
| Total Split (%) | | 32.2% | 32.2% | 33.3% | | | | | | 18.9% | 18.9% | 18.9% |
| Maximum Green (s) | | 21.5 | 21.5 | 22.0 | | | | | | 11.5 | 11.5 | 11.5 |
| Yellow Time (s) | | 3.0 | 3.0 | 3.5 | | | | | | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | | 4.5 | 4.5 | 4.5 | | | | | | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | | 0.0 | 0.0 | 0.0 | | | | | | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | | 7.5 | 7.5 | 8.0 | | | | | | 5.5 | 5.5 | 5.5 |
| Lead/Lag | | Lag | Lag | Lead | | | | | | | | |
| Lead-Lag Optimize? | | Yes | Yes | Yes | | | | | | | | |
| Vehicle Extension (s) | | 3.0 | 3.0 | 3.0 | | | | | | 3.0 | 3.0 | 3.0 |
| Recall Mode | | C-Max | C-Max | None | | | | | | None | None | None |
| Walk Time (s) | | 5.0 | 5.0 | | | | | | | 5.0 | 5.0 | 5.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | | | | | | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 0 | 0 | | | | | | | 0 | 0 | 0 |
| Act Effct Green (s) | | 27.6 | 27.6 | 15.9 | 66.0 | | | | | 11.0 | 11.0 | 11.0 |
| Actuated g/C Ratio | | 0.31 | 0.31 | 0.18 | 0.73 | | | | | 0.12 | 0.12 | 0.12 |
| v/c Ratio | | 0.18 | 0.13 | 0.67 | 0.18 | | | | | 0.67 | 0.37 | 0.03 |
| Control Delay | | 24.4 | 0.4 | 41.5 | 1.0 | | | | | 46.3 | 41.2 | 0.1 |
| Queue Delay | | 0.0 | 0.0 | 2.4 | 0.6 | | | | | 0.0 | 0.0 | 0.0 |
| Total Delay | | 24.4 | 0.4 | 43.9 | 1.6 | | | | | 46.3 | 41.2 | 0.1 |
| LOS | | C | A | D | A | | | | | D | D | A |
| Approach Delay | | 17.2 | | | 28.0 | | | | | | 43.8 | |
| Approach LOS | | B | | | C | | | | | | D | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 90 | |
| Actuated Cycle Length: 90 | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.67 | |
| Intersection Signal Delay: 30.3 | Intersection LOS: C |
| Intersection Capacity Utilization 49.0% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 15: Court Street



## Lanes, Volumes, Timings
## 15: Court Street

02/04/2019

| Lane Group | Ø6 | Ø9 |
|---|---|---|
| Minimum Split (s) | 23.5 | 21.5 |
| Total Split (s) | 59.0 | 14.0 |
| Total Split (%) | 66% | 16% |
| Maximum Green (s) | 51.5 | 8.5 |
| Yellow Time (s) | 3.0 | 3.5 |
| All-Red Time (s) | 4.5 | 2.0 |
| Lost Time Adjust (s) | | |
| Total Lost Time (s) | | |
| Lead/Lag | | |
| Lead-Lag Optimize? | | |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | C-Max | Max |
| Walk Time (s) | 5.0 | 5.0 |
| Flash Dont Walk (s) | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | 0 | 0 |
| Act Effct Green (s) | | |
| Actuated g/C Ratio | | |
| v/c Ratio | | |
| Control Delay | | |
| Queue Delay | | |
| Total Delay | | |
| LOS | | |
| Approach Delay | | |
| Approach LOS | | |

Intersection Summary



## Queues
## 15: Court Street

02/04/2019

| Lane Group | EBT | EBR | WBL | WBT | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 195 | 83 | 409 | 247 | 283 | 85 | 11 |
| v/c Ratio | 0.18 | 0.13 | 0.67 | 0.18 | 0.67 | 0.37 | 0.03 |
| Control Delay | 24.4 | 0.4 | 41.5 | 1.0 | 46.3 | 41.2 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 2.4 | 0.6 | 0.0 | 0.0 | 0.0 |
| Total Delay | 24.4 | 0.4 | 43.9 | 1.6 | 46.3 | 41.2 | 0.1 |
| Queue Length 50th (ft) | 42 | 0 | 86 | 4 | 79 | 45 | 0 |
| Queue Length 95th (ft) | 74 | 0 | 177 | 6 | 121 | 90 | 0 |
| Internal Link Dist (ft) | 159 | | | 68 | | 232 | |
| Turn Bay Length (ft) | | | | | | | |
| Base Capacity (vph) | 1085 | 619 | 839 | 1365 | 438 | 238 | 392 |
| Starvation Cap Reductn | 0 | 0 | 299 | 796 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.18 | 0.13 | 0.76 | 0.43 | 0.65 | 0.36 | 0.03 |

Intersection Summary

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 6 | 98 | 150 | 19 | 9 | 7 |
| Future Volume (vph) | 6 | 98 | 150 | 19 | 9 | 7 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | 0.985 | | 0.940 | |
| Flt Protected | | 0.997 | | | 0.973 | |
| Satd. Flow (prot) | 0 | 1857 | 1835 | 0 | 1704 | 0 |
| Flt Permitted | | 0.997 | | | 0.973 | |
| Satd. Flow (perm) | 0 | 1857 | 1835 | 0 | 1704 | 0 |
| Link Speed (mph) | | 30 | 30 | | 30 | |
| Link Distance (ft) | | 346 | 288 | | 475 | |
| Travel Time (s) | | 7.9 | 6.5 | | 10.8 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 7 | 107 | 163 | 21 | 10 | 8 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 114 | 184 | 0 | 18 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 0 | 0 | | 12 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Sign Control | | Free | Free | | Stop | |

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 20.1% ICU Level of Service A
Analysis Period (min) 15





| Intersection | |
|---|---|
| Int Delay, s/veh | 0.7 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 6 | 98 | 150 | 19 | 9 | 7 |
| Future Vol, veh/h | 6 | 98 | 150 | 19 | 9 | 7 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 7 | 107 | 163 | 21 | 10 | 8 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 184 | 0 | - | 0 | 295 | 174 |
| Stage 1 | - | - | - | - | 174 | - |
| Stage 2 | - | - | - | - | 121 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1391 | - | - | - | 696 | 869 |
| Stage 1 | - | - | - | - | 856 | - |
| Stage 2 | - | - | - | - | 904 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1391 | - | - | - | 693 | 869 |
| Mov Cap-2 Maneuver | - | - | - | - | 693 | - |
| Stage 1 | - | - | - | - | 852 | - |
| Stage 2 | - | - | - | - | 904 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.4 | 0 | 9.8 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1391 | - | - | - | 760 |
| HCM Lane V/C Ratio | 0.005 | - | - | - | 0.023 |
| HCM Control Delay (s) | 7.6 | 0 | - | - | 9.8 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.1 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | ↰ | ↑↱ | | | ↑↱ | | | | ↱ | | | ↱ |
| Traffic Volume (vph) | 31 | 1115 | 21 | 0 | 933 | 57 | 0 | 0 | 20 | 0 | 0 | 37 |
| Future Volume (vph) | 31 | 1115 | 21 | 0 | 933 | 57 | 0 | 0 | 20 | 0 | 0 | 37 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | 0 | 150 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 1 | | 0 | 0 | | 0 | 0 | | 1 | 0 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.997 | | | 0.992 | | | | 0.865 | | | 0.865 |
| Flt Protected | 0.950 | | | | | | | | | | | |
| Satd. Flow (prot) | 1770 | 3463 | 0 | 0 | 3386 | 0 | 0 | 0 | 822 | 0 | 0 | 1611 |
| Flt Permitted | 0.950 | | | | | | | | | | | |
| Satd. Flow (perm) | 1770 | 3463 | 0 | 0 | 3386 | 0 | 0 | 0 | 822 | 0 | 0 | 1611 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 333 | | | 392 | | | 444 | | | 252 | |
| Travel Time (s) | | 7.6 | | | 8.9 | | | 10.1 | | | 5.7 | |
| Peak Hour Factor | 0.92 | 0.90 | 0.90 | 0.90 | 0.90 | 0.92 | 0.90 | 0.92 | 0.90 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 2% | 4% | 0% | 11% | 6% | 2% | 0% | 2% | 100% | 2% | 2% | 2% |
| Adj. Flow (vph) | 34 | 1239 | 23 | 0 | 1037 | 62 | 0 | 0 | 22 | 0 | 0 | 40 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 34 | 1262 | 0 | 0 | 1099 | 0 | 0 | 0 | 22 | 0 | 0 | 40 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Sign Control | | Free | | | Free | | | Yield | | | Yield | |

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 41.5% ICU Level of Service A

Analysis Period (min) 15





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ✥ | | | ✥ | | | ✥ | | | ✥ | |
| Traffic Volume (vph) | 19 | 144 | 16 | 14 | 221 | 35 | 9 | 8 | 15 | 8 | 2 | 26 |
| Future Volume (vph) | 19 | 144 | 16 | 14 | 221 | 35 | 9 | 8 | 15 | 8 | 2 | 26 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.988 | | | 0.982 | | | 0.938 | | | 0.903 | |
| Flt Protected | | 0.995 | | | 0.997 | | | 0.986 | | | 0.989 | |
| Satd. Flow (prot) | 0 | 1600 | 0 | 0 | 1630 | 0 | 0 | 1748 | 0 | 0 | 1664 | 0 |
| Flt Permitted | | 0.995 | | | 0.997 | | | 0.986 | | | 0.989 | |
| Satd. Flow (perm) | 0 | 1600 | 0 | 0 | 1630 | 0 | 0 | 1748 | 0 | 0 | 1664 | 0 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 288 | | | 232 | | | 181 | | | 444 | |
| Travel Time (s) | | 6.5 | | | 5.3 | | | 4.1 | | | 10.1 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 2% | 6% | 0% | 0% | 3% | 2% | 0% | 2% | 0% | 2% | 2% | 2% |
| Parking (#/hr) | | 0 | | | 0 | | | | | | | |
| Adj. Flow (vph) | 21 | 157 | 17 | 15 | 240 | 38 | 10 | 9 | 16 | 9 | 2 | 28 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 195 | 0 | 0 | 293 | 0 | 0 | 35 | 0 | 0 | 39 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.14 | 1.00 | 1.00 | 1.14 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 26.7% ICU Level of Service A

Analysis Period (min) 15

| Intersection | |
|---|---|
| Int Delay, s/veh | 2 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 19 | 144 | 16 | 14 | 221 | 35 | 9 | 8 | 15 | 8 | 2 | 26 |
| Future Vol, veh/h | 19 | 144 | 16 | 14 | 221 | 35 | 9 | 8 | 15 | 8 | 2 | 26 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 6 | 0 | 0 | 3 | 2 | 0 | 2 | 0 | 2 | 2 | 2 |
| Mvmt Flow | 21 | 157 | 17 | 15 | 240 | 38 | 10 | 9 | 16 | 9 | 2 | 28 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 278 | 0 | 0 | 174 | 0 | 0 | 512 | 516 | 166 | 509 | 505 | 259 |
| Stage 1 | - | - | - | - | - | - | 208 | 208 | - | 289 | 289 | - |
| Stage 2 | - | - | - | - | - | - | 304 | 308 | - | 220 | 216 | - |
| Critical Hdwy | 4.12 | - | - | 4.1 | - | - | 7.1 | 6.52 | 6.2 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.2 | - | - | 3.5 | 4.018 | 3.3 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1285 | - | - | 1415 | - | - | 476 | 463 | 884 | 475 | 470 | 780 |
| Stage 1 | - | - | - | - | - | - | 799 | 730 | - | 719 | 673 | - |
| Stage 2 | - | - | - | - | - | - | 710 | 660 | - | 782 | 724 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1285 | - | - | 1415 | - | - | 446 | 449 | 884 | 448 | 455 | 780 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 446 | 449 | - | 448 | 455 | - |
| Stage 1 | - | - | - | - | - | - | 785 | 717 | - | 706 | 664 | - |
| Stage 2 | - | - | - | - | - | - | 673 | 651 | - | 745 | 711 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 0.8 | 0.4 | 11.6 | 10.9 |
| HCM LOS | | | B | B |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 582 | 1285 | - | - | 1415 | - | - | 648 |
| HCM Lane V/C Ratio | 0.06 | 0.016 | - | - | 0.011 | - | - | 0.06 |
| HCM Control Delay (s) | 11.6 | 7.8 | 0 | - | 7.6 | 0 | - | 10.9 |
| HCM Lane LOS | B | A | A | - | A | A | - | B |
| HCM 95th %tile Q(veh) | 0.2 | 0 | - | - | 0 | - | - | 0.2 |





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 1 | 1067 | 127 | 111 | 761 | 9 | 110 | 374 | 82 | 30 | 398 | 21 |
| Future Volume (vph) | 1 | 1067 | 127 | 111 | 761 | 9 | 110 | 374 | 82 | 30 | 398 | 21 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | 150 | 150 | | 0 | 150 | | 0 | 150 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 |
| Frt | | 0.984 | | | 0.998 | | | 0.973 | | | 0.992 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 3423 | 0 | 1770 | 3498 | 0 | 1770 | 1812 | 0 | 1770 | 3526 | 0 |
| Flt Permitted | 0.271 | | | 0.095 | | | 0.418 | | | 0.167 | | |
| Satd. Flow (perm) | 505 | 3423 | 0 | 177 | 3498 | 0 | 779 | 1812 | 0 | 311 | 3526 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 14 | | | 1 | | | 11 | | | 5 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 392 | | | 365 | | | 482 | | | 307 | |
| Travel Time (s) | | 8.9 | | | 8.3 | | | 11.0 | | | 7.0 | |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Heavy Vehicles (%) | 2% | 4% | 2% | 2% | 3% | 2% | 2% | 2% | 2% | 2% | 1% | 12% |
| Adj. Flow (vph) | 1 | 1111 | 132 | 116 | 793 | 9 | 115 | 390 | 85 | 31 | 415 | 22 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 1 | 1243 | 0 | 116 | 802 | 0 | 115 | 475 | 0 | 31 | 437 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | pm+pt | NA | | pm+pt | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Permitted Phases | 2 | | | 6 | | | 8 | | | 4 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 8 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 8.0 | 15.0 | | 8.0 | 15.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 14.0 | 46.0 | | 14.0 | 46.0 | | 42.0 | 42.0 | | 42.0 | 42.0 | |
| Total Split (s) | 14.0 | 51.0 | | 14.0 | 51.0 | | 45.0 | 45.0 | | 45.0 | 45.0 | |
| Total Split (%) | 12.7% | 46.4% | | 12.7% | 46.4% | | 40.9% | 40.9% | | 40.9% | 40.9% | |
| Maximum Green (s) | 8.0 | 45.0 | | 8.0 | 45.0 | | 39.0 | 39.0 | | 39.0 | 39.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Lead/Lag | Lag | Lead | | Lag | Lead | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 1.0 | | 3.0 | 3.0 | | 2.5 | 2.5 | | 2.5 | 2.5 | |
| Recall Mode | None | C-Min | | None | C-Min | | None | None | | None | None | |
| Walk Time (s) | | 7.0 | | | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | | 33.0 | | | 33.0 | | 29.0 | 29.0 | | 29.0 | 29.0 | |
| Pedestrian Calls (#/hr) | | 0 | | | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | 54.5 | 51.2 | | 63.1 | 61.5 | | 32.8 | 32.8 | | 32.8 | 32.8 | |
| Actuated g/C Ratio | 0.50 | 0.47 | | 0.57 | 0.56 | | 0.30 | 0.30 | | 0.30 | 0.30 | |
| v/c Ratio | 0.00 | 0.78 | | 0.53 | 0.41 | | 0.50 | 0.87 | | 0.34 | 0.41 | |
| Control Delay | 5.0 | 15.2 | | 38.6 | 17.0 | | 38.3 | 51.9 | | 38.8 | 31.0 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.9 | | 0.0 | 0.0 | |
| Total Delay | 5.0 | 15.2 | | 38.6 | 17.0 | | 38.3 | 52.8 | | 38.8 | 31.0 | |
| LOS | A | B | | D | B | | D | D | | D | C | |
| Approach Delay | | 15.2 | | | 19.7 | | | 50.0 | | | 31.5 | |
| Approach LOS | | B | | | B | | | D | | | C | |

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 30 (27%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 105

Control Type: Actuated-Coordinated

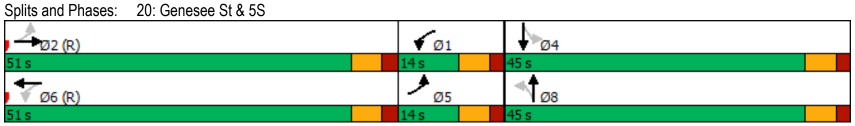
Maximum v/c Ratio: 0.87

Intersection Signal Delay: 25.2 Intersection LOS: C

Intersection Capacity Utilization 89.9% ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 20: Genesee St & 5S








| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 1 | 1243 | 116 | 802 | 115 | 475 | 31 | 437 |
| v/c Ratio | 0.00 | 0.78 | 0.53 | 0.41 | 0.50 | 0.87 | 0.34 | 0.41 |
| Control Delay | 5.0 | 15.2 | 38.6 | 17.0 | 38.3 | 51.9 | 38.8 | 31.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.9 | 0.0 | 0.0 |
| Total Delay | 5.0 | 15.2 | 38.6 | 17.0 | 38.3 | 52.8 | 38.8 | 31.0 |
| Queue Length 50th (ft) | 0 | 184 | 35 | 152 | 66 | 305 | 17 | 125 |
| Queue Length 95th (ft) | m0 | #298 | #91 | 306 | 117 | 409 | 45 | 160 |
| Internal Link Dist (ft) | | 312 | | 285 | | 402 | | 227 |
| Turn Bay Length (ft) | 150 | | 150 | | 150 | | 150 | |
| Base Capacity (vph) | 352 | 1599 | 217 | 1984 | 276 | 649 | 110 | 1253 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 44 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.00 | 0.78 | 0.53 | 0.40 | 0.42 | 0.79 | 0.28 | 0.35 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 26 | 85 | 34 | 43 | 202 | 24 | 36 | 415 | 40 | 105 | 363 | 41 |
| Future Volume (vph) | 26 | 85 | 34 | 43 | 202 | 24 | 36 | 415 | 40 | 105 | 363 | 41 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Frt | | 0.968 | | | 0.988 | | | 0.987 | | | 0.988 | |
| Flt Protected | | 0.992 | | | 0.992 | | | 0.996 | | | 0.990 | |
| Satd. Flow (prot) | 0 | 1590 | 0 | 0 | 1635 | 0 | 0 | 3490 | 0 | 0 | 3462 | 0 |
| Flt Permitted | | 0.921 | | | 0.926 | | | 0.883 | | | 0.744 | |
| Satd. Flow (perm) | 0 | 1476 | 0 | 0 | 1527 | 0 | 0 | 3094 | 0 | 0 | 2602 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 22 | | | 6 | | | 16 | | | 20 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 232 | | | 304 | | | 358 | | | 482 | |
| Travel Time (s) | | 5.3 | | | 6.9 | | | 8.1 | | | 11.0 | |
| Peak Hour Factor | 0.92 | 0.88 | 0.88 | 0.88 | 0.88 | 0.92 | 0.88 | 0.92 | 0.88 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 2% | 5% | 0% | 5% | 2% | 2% | 0% | 2% | 0% | 2% | 2% | 2% |
| Parking (#/hr) | | 0 | | | 0 | | | | | | | |
| Adj. Flow (vph) | 28 | 97 | 39 | 49 | 230 | 26 | 41 | 451 | 45 | 114 | 395 | 45 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 164 | 0 | 0 | 305 | 0 | 0 | 537 | 0 | 0 | 554 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.14 | 1.00 | 1.00 | 1.14 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | pm+pt | NA | |
| Protected Phases | | 4 | | | 8 | | | 6 | | 5 | 2 | |
| Permitted Phases | 4 | | | 8 | | | 6 | | | 2 | | |
| Detector Phase | 4 | 4 | | 8 | 8 | | 6 | 6 | | 5 | 2 | |



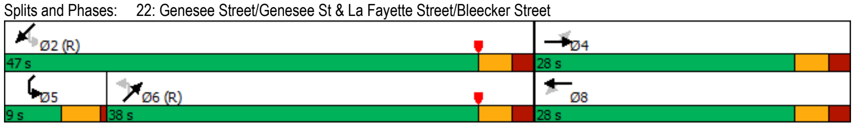


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 5.0 | 4.0 | |
| Minimum Split (s) | 27.0 | 27.0 | | 23.0 | 23.0 | | 23.0 | 23.0 | | 10.0 | 23.0 | |
| Total Split (s) | 28.0 | 28.0 | | 28.0 | 28.0 | | 38.0 | 38.0 | | 9.0 | 47.0 | |
| Total Split (%) | 37.3% | 37.3% | | 37.3% | 37.3% | | 50.7% | 50.7% | | 12.0% | 62.7% | |
| Maximum Green (s) | 23.0 | 23.0 | | 23.0 | 23.0 | | 33.0 | 33.0 | | 5.0 | 42.0 | |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.5 | 3.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 0.5 | 2.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | Lag | Lag | | Lead | | |
| Lead-Lag Optimize? | | | | | | | Yes | Yes | | Yes | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | Max | Max | | Max | Max | | C-Max | C-Max | | None | C-Max | |
| Walk Time (s) | 8.0 | 8.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | | 2.0 | |
| Flash Dont Walk (s) | 14.0 | 14.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | | | 7.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | | 0 | |
| Act Effct Green (s) | | 23.0 | | | 23.0 | | | 42.0 | | | 42.0 | |
| Actuated g/C Ratio | | 0.31 | | | 0.31 | | | 0.56 | | | 0.56 | |
| v/c Ratio | | 0.35 | | | 0.65 | | | 0.31 | | | 0.38 | |
| Control Delay | | 20.0 | | | 29.5 | | | 5.4 | | | 9.8 | |
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 20.0 | | | 29.5 | | | 5.4 | | | 9.8 | |
| LOS | | B | | | C | | | A | | | A | |
| Approach Delay | | 20.0 | | | 29.5 | | | 5.4 | | | 9.8 | |
| Approach LOS | | B | | | C | | | A | | | A | |

**Intersection Summary**

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:SWTL and 6:NETL, Start of Yellow, Master Intersection
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.65
Intersection Signal Delay: 13.2 Intersection LOS: B
Intersection Capacity Utilization 59.4% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 22: Genesee Street/Genesee St & La Fayette Street/Bleecker Street



| Lane Group | EBT | WBT | NET | SWT |
|---|---|---|---|---|
| Lane Group Flow (vph) | 164 | 305 | 537 | 554 |
| v/c Ratio | 0.35 | 0.65 | 0.31 | 0.38 |
| Control Delay | 20.0 | 29.5 | 5.4 | 9.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 20.0 | 29.5 | 5.4 | 9.8 |
| Queue Length 50th (ft) | 50 | 119 | 38 | 66 |
| Queue Length 95th (ft) | 97 | 197 | 51 | 98 |
| Internal Link Dist (ft) | 152 | 224 | 278 | 402 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 467 | 472 | 1739 | 1465 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.35 | 0.65 | 0.31 | 0.38 |

Intersection Summary





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 36 | 118 | 51 | 39 | 151 | 83 | 46 | 367 | 20 | 34 | 371 | 21 |
| Future Volume (vph) | 36 | 118 | 51 | 39 | 151 | 83 | 46 | 367 | 20 | 34 | 371 | 21 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Frt | | 0.966 | | | 0.959 | | | 0.993 | | | 0.993 | |
| Flt Protected | | 0.991 | | | 0.993 | | | 0.995 | | | 0.996 | |
| Satd. Flow (prot) | 0 | 1779 | 0 | 0 | 1767 | 0 | 0 | 3470 | 0 | 0 | 3514 | 0 |
| Flt Permitted | | 0.894 | | | 0.922 | | | 0.845 | | | 0.876 | |
| Satd. Flow (perm) | 0 | 1605 | 0 | 0 | 1640 | 0 | 0 | 2947 | 0 | 0 | 3091 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 23 | | | 35 | | | 7 | | | 8 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 718 | | | 274 | | | 241 | | | 358 | |
| Travel Time (s) | | 16.3 | | | 6.2 | | | 5.5 | | | 8.1 | |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Heavy Vehicles (%) | 3% | 3% | 0% | 13% | 1% | 0% | 0% | 1% | 42% | 6% | 1% | 5% |
| Adj. Flow (vph) | 41 | 136 | 59 | 45 | 174 | 95 | 53 | 422 | 23 | 39 | 426 | 24 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 236 | 0 | 0 | 314 | 0 | 0 | 498 | 0 | 0 | 489 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | pm+pt | NA | | Perm | NA | | pm+pt | NA | |
| Protected Phases | | 4 | | 3 | 8 | | | 6 | | 5 | 2 | |
| Permitted Phases | 4 | | | 8 | | | 6 | | | 2 | | |
| Detector Phase | 4 | 4 | | 3 | 8 | | 6 | 6 | | 5 | 2 | |
| Switch Phase | | | | | | | | | | | | |

## Lanes, Volumes, Timings

### 23: Columbia Street/Elizabeth Street & Genesee Street

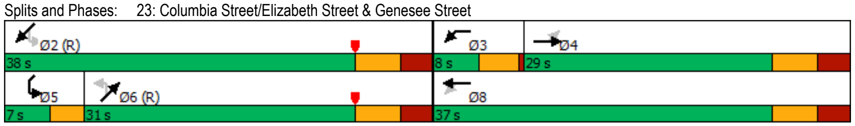
02/04/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Initial (s) | 5.0 | 5.0 | | 4.0 | 1.0 | | 5.0 | 5.0 | | 4.0 | 5.0 | |
| Minimum Split (s) | 23.0 | 23.0 | | 8.0 | 23.0 | | 23.5 | 23.5 | | 7.0 | 23.5 | |
| Total Split (s) | 29.0 | 29.0 | | 8.0 | 37.0 | | 31.0 | 31.0 | | 7.0 | 38.0 | |
| Total Split (%) | 38.7% | 38.7% | | 10.7% | 49.3% | | 41.3% | 41.3% | | 9.3% | 50.7% | |
| Maximum Green (s) | 22.0 | 22.0 | | 4.0 | 30.0 | | 24.0 | 24.0 | | 4.0 | 31.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 3.5 | 4.0 | | 4.0 | 4.0 | | 3.0 | 4.0 | |
| All-Red Time (s) | 3.0 | 3.0 | | 0.5 | 3.0 | | 3.0 | 3.0 | | 0.0 | 3.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 7.0 | | | 7.0 | | | 7.0 | | | 7.0 | |
| Lead/Lag | Lag | Lag | | Lead | | | Lag | Lag | | Lead | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | | | Yes | Yes | | Yes | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | Max | Max | | None | Max | | C-Max | C-Max | | None | C-Max | |
| Walk Time (s) | 5.0 | 5.0 | | | 5.0 | | 5.0 | 5.0 | | | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | | 11.0 | | 11.0 | 11.0 | | | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | | 0 | | 0 | 0 | | | 0 | |
| Act Effct Green (s) | | 30.0 | | | 30.0 | | | 31.0 | | | 31.0 | |
| Actuated g/C Ratio | | 0.40 | | | 0.40 | | | 0.41 | | | 0.41 | |
| v/c Ratio | | 0.36 | | | 0.46 | | | 0.41 | | | 0.38 | |
| Control Delay | | 16.1 | | | 17.3 | | | 15.6 | | | 11.2 | |
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 16.1 | | | 17.3 | | | 15.6 | | | 11.2 | |
| LOS | | B | | | B | | | B | | | B | |
| Approach Delay | | 16.1 | | | 17.3 | | | 15.6 | | | 11.2 | |
| Approach LOS | | B | | | B | | | B | | | B | |

**Intersection Summary**

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 1 (1%), Referenced to phase 2:SWTL and 6:NETL, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.46
Intersection Signal Delay: 14.6 Intersection LOS: B
Intersection Capacity Utilization 60.7% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 23: Columbia Street/Elizabeth Street & Genesee Street






## Queues

### 23: Columbia Street/Elizabeth Street & Genesee Street

02/04/2019

| Lane Group | EBT | WBT | NET | SWT |
|---|---|---|---|---|
| Lane Group Flow (vph) | 236 | 314 | 498 | 489 |
| v/c Ratio | 0.36 | 0.46 | 0.41 | 0.38 |
| Control Delay | 16.1 | 17.3 | 15.6 | 11.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 16.1 | 17.3 | 15.6 | 11.2 |
| Queue Length 50th (ft) | 67 | 92 | 85 | 53 |
| Queue Length 95th (ft) | 116 | 152 | 120 | 77 |
| Internal Link Dist (ft) | 638 | 194 | 161 | 278 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 655 | 677 | 1222 | 1282 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.36 | 0.46 | 0.41 | 0.38 |

**Intersection Summary**

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 118 | 15 | 15 | 106 | 0 | 0 | 0 | 0 | 528 | 42 | 0 |
| Future Volume (vph) | 0 | 118 | 15 | 15 | 106 | 0 | 0 | 0 | 0 | 528 | 42 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 100 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 1 | | 0 | 0 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.91 | 0.91 | 1.00 |
| Frt | | 0.983 | | | | | | | | | | |
| Flt Protected | | | | 0.950 | | | | | | 0.950 | 0.959 | |
| Satd. Flow (prot) | 0 | 3479 | 0 | 1770 | 1863 | 0 | 0 | 0 | 0 | 1610 | 3251 | 0 |
| Flt Permitted | | | | | | | | | | 0.950 | 0.959 | |
| Satd. Flow (perm) | 0 | 3479 | 0 | 1863 | 1863 | 0 | 0 | 0 | 0 | 1610 | 3251 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 16 | | | | | | | | | | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 342 | | | 169 | | | 195 | | | 367 | |
| Travel Time (s) | | 7.8 | | | 3.8 | | | 4.4 | | | 8.3 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 0 | 128 | 16 | 16 | 115 | 0 | 0 | 0 | 0 | 574 | 46 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | 50% | | |
| Lane Group Flow (vph) | 0 | 144 | 0 | 16 | 115 | 0 | 0 | 0 | 0 | 287 | 333 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | | 2 | | 1 | 2 | | | | | 1 | 2 | |
| Detector Template | | Thru | | Left | Thru | | | | | Left | Thru | |
| Leading Detector (ft) | | 100 | | 20 | 100 | | | | | 20 | 100 | |
| Trailing Detector (ft) | | 0 | | 0 | 0 | | | | | 0 | 0 | |
| Detector 1 Position(ft) | | 0 | | 0 | 0 | | | | | 0 | 0 | |
| Detector 1 Size(ft) | | 6 | | 20 | 6 | | | | | 20 | 6 | |
| Detector 1 Type | | Cl+Ex | | Cl+Ex | Cl+Ex | | | | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | | 0.0 | | 0.0 | 0.0 | | | | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | | 0.0 | | 0.0 | 0.0 | | | | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | | 0.0 | | 0.0 | 0.0 | | | | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | | | 0.0 | |
| Turn Type | | NA | | Perm | NA | | | | | Perm | NA | |
| Protected Phases | | 1 | | | 1 | | | | | | 4 | |
| Permitted Phases | | | | 1 | | | | | | 4 | | |





| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Detector Phase | | 1 | | 1 | 1 | | | | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | 4.0 | | 4.0 | 4.0 | | | | | 4.0 | 4.0 | |
| Minimum Split (s) | | 8.0 | | 8.0 | 8.0 | | | | | 10.0 | 10.0 | |
| Total Split (s) | | 8.0 | | 8.0 | 8.0 | | | | | 20.0 | 20.0 | |
| Total Split (%) | | 28.6% | | 28.6% | 28.6% | | | | | 71.4% | 71.4% | |
| Maximum Green (s) | | 4.0 | | 4.0 | 4.0 | | | | | 16.0 | 16.0 | |
| Yellow Time (s) | | 3.5 | | 3.5 | 3.5 | | | | | 2.5 | 2.5 | |
| All-Red Time (s) | | 0.5 | | 0.5 | 0.5 | | | | | 1.5 | 1.5 | |
| Lost Time Adjust (s) | | 0.0 | | 0.0 | 0.0 | | | | | 0.0 | 0.0 | |
| Total Lost Time (s) | | 4.0 | | 4.0 | 4.0 | | | | | 4.0 | 4.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | | 3.0 | | 3.0 | 3.0 | | | | | 2.0 | 2.0 | |
| Recall Mode | | None | | None | None | | | | | None | None | |
| Walk Time (s) | | | | | | | | | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | | | | | | | | | | 14.0 | 14.0 | |
| Pedestrian Calls (#/hr) | | | | | | | | | | 25 | 25 | |
| Act Effct Green (s) | | 4.6 | | 4.6 | 4.6 | | | | | 11.8 | 11.8 | |
| Actuated g/C Ratio | | 0.22 | | 0.22 | 0.22 | | | | | 0.57 | 0.57 | |
| v/c Ratio | | 0.18 | | 0.04 | 0.28 | | | | | 0.31 | 0.18 | |
| Control Delay | | 9.3 | | 10.9 | 13.2 | | | | | 4.1 | 3.0 | |
| Queue Delay | | 0.0 | | 0.0 | 0.0 | | | | | 0.0 | 0.0 | |
| Total Delay | | 9.3 | | 10.9 | 13.2 | | | | | 4.1 | 3.0 | |
| LOS | | A | | B | B | | | | | A | A | |
| Approach Delay | | 9.3 | | | 12.9 | | | | | | 3.5 | |
| Approach LOS | | A | | | B | | | | | | A | |

Intersection Summary

Area Type: Other
Cycle Length: 28
Actuated Cycle Length: 20.7
Natural Cycle: 40
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.31
Intersection Signal Delay: 5.8 Intersection LOS: A
Intersection Capacity Utilization 31.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 24: Broad St & Genesee St SB Off-Ramp

## 24: Broad St & Genesee St SB Off-Ramp



| Lane Group | SET | NWL | NWT | SWL | SWT |
|---|---|---|---|---|---|
| Lane Group Flow (vph) | 144 | 16 | 115 | 287 | 333 |
| v/c Ratio | 0.18 | 0.04 | 0.28 | 0.31 | 0.18 |
| Control Delay | 9.3 | 10.9 | 13.2 | 4.1 | 3.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 9.3 | 10.9 | 13.2 | 4.1 | 3.0 |
| Queue Length 50th (ft) | 5 | 1 | 9 | 16 | 8 |
| Queue Length 95th (ft) | 25 | 12 | #57 | 32 | 15 |
| Internal Link Dist (ft) | 262 | | 89 | | 287 |
| Turn Bay Length (ft) | | 100 | | | |
| Base Capacity (vph) | 787 | 414 | 414 | 1315 | 2655 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.18 | 0.04 | 0.28 | 0.22 | 0.13 |

Intersection Summary

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.





## 25: Blandina Street & Genesee Street



| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 31 | 5 | 7 | 4 | 372 | 9 | 27 | 440 | 25 |
| Future Volume (vph) | 0 | 0 | 0 | 31 | 5 | 7 | 4 | 372 | 9 | 27 | 440 | 25 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Frt | | | | | 0.978 | | | 0.997 | | | 0.992 | |
| Flt Protected | | | | | 0.966 | | | 0.999 | | | 0.997 | |
| Satd. Flow (prot) | 0 | 0 | 0 | 0 | 1795 | 0 | 0 | 3527 | 0 | 0 | 3508 | 0 |
| Flt Permitted | | | | | 0.966 | | | 0.951 | | | 0.917 | |
| Satd. Flow (perm) | 0 | 0 | 0 | 0 | 1795 | 0 | 0 | 3358 | 0 | 0 | 3226 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | No |
| Satd. Flow (RTOR) | | | | | 8 | | | 5 | | | | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 313 | | | 160 | | | 152 | | | 194 | |
| Travel Time (s) | | 7.1 | | | 3.6 | | | 3.5 | | | 4.4 | |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 2% | 0% | 0% | 2% | 0% |
| Adj. Flow (vph) | 0 | 0 | 0 | 35 | 6 | 8 | 5 | 423 | 10 | 31 | 500 | 28 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 0 | 0 | 49 | 0 | 0 | 438 | 0 | 0 | 559 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | | | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | | | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | | | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | | | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | | | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | | | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | | | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | | | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | | | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | | | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | | | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | | | | 4 | | | 2 | | | 2 | |
| Permitted Phases | | | | 4 | | | 2 | | | 2 | | |
| Detector Phase | | | | 4 | 4 | | 2 | 2 | | 2 | 2 | |
| Switch Phase | | | | | | | | | | | | |

| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Initial (s) | | | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Minimum Split (s) | | | | 23.0 | 23.0 | | 28.0 | 28.0 | | 28.0 | 28.0 | |
| Total Split (s) | | | | 27.0 | 27.0 | | 48.0 | 48.0 | | 48.0 | 48.0 | |
| Total Split (%) | | | | 36.0% | 36.0% | | 64.0% | 64.0% | | 64.0% | 64.0% | |
| Maximum Green (s) | | | | 22.0 | 22.0 | | 43.0 | 43.0 | | 43.0 | 43.0 | |
| Yellow Time (s) | | | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | | | | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Lost Time Adjust (s) | | | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | | | | 5.0 | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | | | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | | | | None | None | | C-Max | C-Max | | C-Max | C-Max | |
| Walk Time (s) | | | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | | | | 11.0 | 11.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | |
| Pedestrian Calls (#/hr) | | | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | | | | 7.3 | | | 64.0 | | | 64.0 | |
| Actuated g/C Ratio | | | | | 0.10 | | | 0.85 | | | 0.85 | |
| v/c Ratio | | | | | 0.27 | | | 0.15 | | | 0.20 | |
| Control Delay | | | | | 30.5 | | | 2.0 | | | 1.0 | |
| Queue Delay | | | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | | | | 30.5 | | | 2.0 | | | 1.0 | |
| LOS | | | | | C | | | A | | | A | |
| Approach Delay | | | | | 30.5 | | | 2.0 | | | 1.0 | |
| Approach LOS | | | | | C | | | A | | | A | |

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 7.5 (10%), Referenced to phase 2:NESW and 6:, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.27
Intersection Signal Delay: 2.8 Intersection LOS: A
Intersection Capacity Utilization 40.3% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 25: Blandina Street & Genesee Street






| Lane Group | SBT | NET | SWT |
|---|---|---|---|
| Lane Group Flow (vph) | 49 | 438 | 559 |
| v/c Ratio | 0.27 | 0.15 | 0.20 |
| Control Delay | 30.5 | 2.0 | 1.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 |
| Total Delay | 30.5 | 2.0 | 1.0 |
| Queue Length 50th (ft) | 18 | 20 | 10 |
| Queue Length 95th (ft) | 46 | 35 | 17 |
| Internal Link Dist (ft) | 80 | 72 | 114 |
| Turn Bay Length (ft) | | | |
| Base Capacity (vph) | 532 | 2867 | 2753 |
| Starvation Cap Reductn | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.09 | 0.15 | 0.20 |

Intersection Summary

| Lane Group | NBL | NBR | NET | NER | SWL | SWT | Ø4 |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 396 | 25 | 29 | 391 | |
| Future Volume (vph) | 0 | 0 | 396 | 25 | 29 | 391 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 | |
| Frt | | | 0.991 | | | | |
| Flt Protected | | | | | | 0.997 | |
| Satd. Flow (prot) | 0 | 0 | 3328 | 0 | 0 | 3492 | |
| Flt Permitted | | | | | | 0.902 | |
| Satd. Flow (perm) | 0 | 0 | 3328 | 0 | 0 | 3159 | |
| Right Turn on Red | | Yes | | Yes | | | |
| Satd. Flow (RTOR) | | | 17 | | | | |
| Link Speed (mph) | 30 | | 30 | | | 30 | |
| Link Distance (ft) | 399 | | 483 | | | 150 | |
| Travel Time (s) | 9.1 | | 11.0 | | | 3.4 | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | |
| Heavy Vehicles (%) | 0% | 0% | 2% | 4% | 4% | 3% | |
| Parking (#/hr) | | | 0 | | | | |
| Adj. Flow (vph) | 0 | 0 | 417 | 26 | 31 | 412 | |
| Shared Lane Traffic (%) | | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 443 | 0 | 0 | 443 | |
| Enter Blocked Intersection | No | No | No | No | No | No | |
| Lane Alignment | Left | Right | Left | Right | Left | Left | |
| Median Width(ft) | 0 | | 0 | | | 0 | |
| Link Offset(ft) | 0 | | 0 | | | 0 | |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.07 | 1.00 | 1.00 | 1.00 | |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | | |
| Number of Detectors | | | 2 | | 1 | 2 | |
| Detector Template | | | Thru | | Left | Thru | |
| Leading Detector (ft) | | | 100 | | 20 | 100 | |
| Trailing Detector (ft) | | | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | | | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | | | 6 | | 20 | 6 | |
| Detector 1 Type | | | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | |
| Detector 1 Extend (s) | | | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | | | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | | | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | | 6 | | | 6 | |
| Detector 2 Type | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | |
| Detector 2 Extend (s) | | | 0.0 | | | 0.0 | |
| Turn Type | | | NA | | Perm | NA | |
| Protected Phases | | | 6 | | | 2 | 4 |
| Permitted Phases | | | | | 2 | | |
| Detector Phase | | | 6 | | 2 | 2 | |



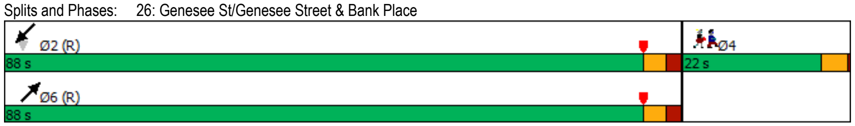


| Lane Group | NBL | NBR | NET | NER | SWL | SWT | Ø4 |
|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | |
| Minimum Initial (s) | | | 5.0 | | 5.0 | 5.0 | 15.0 |
| Minimum Split (s) | | | 27.0 | | 27.0 | 27.0 | 22.0 |
| Total Split (s) | | | 88.0 | | 88.0 | 88.0 | 22.0 |
| Total Split (%) | | | 80.0% | | 80.0% | 80.0% | 20% |
| Maximum Green (s) | | | 83.0 | | 83.0 | 83.0 | 18.0 |
| Yellow Time (s) | | | 3.0 | | 3.0 | 3.0 | 3.5 |
| All-Red Time (s) | | | 2.0 | | 2.0 | 2.0 | 0.5 |
| Lost Time Adjust (s) | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | |
| Lead-Lag Optimize? | | | | | | | |
| Vehicle Extension (s) | | | 3.0 | | 3.0 | 3.0 | 3.0 |
| Recall Mode | | | C-Max | | C-Max | C-Max | None |
| Walk Time (s) | | | 5.0 | | 7.0 | 7.0 | 5.0 |
| Flash Dont Walk (s) | | | 11.0 | | 15.0 | 15.0 | 11.0 |
| Pedestrian Calls (#/hr) | | | 0 | | 0 | 0 | 0 |
| Act Effct Green (s) | | | 110.0 | | | 110.0 | |
| Actuated g/C Ratio | | | 1.00 | | | 1.00 | |
| v/c Ratio | | | 0.13 | | | 0.14 | |
| Control Delay | | | 0.1 | | | 0.1 | |
| Queue Delay | | | 0.0 | | | 0.0 | |
| Total Delay | | | 0.1 | | | 0.1 | |
| LOS | | | A | | | A | |
| Approach Delay | | | 0.1 | | | 0.1 | |
| Approach LOS | | | A | | | A | |

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 12 (11%), Referenced to phase 2:SWTL and 6:NET, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.14
Intersection Signal Delay: 0.1 Intersection LOS: A
Intersection Capacity Utilization 31.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 26: Genesee St/Genesee Street & Bank Place



Queues
26: Genesee St/Genesee Street & Bank Place
02/04/2019

| Lane Group | NET | SWT |
|---|---|---|
| Lane Group Flow (vph) | 443 | 443 |
| v/c Ratio | 0.13 | 0.14 |
| Control Delay | 0.1 | 0.1 |
| Queue Delay | 0.0 | 0.0 |
| Total Delay | 0.1 | 0.1 |
| Queue Length 50th (ft) | 0 | 0 |
| Queue Length 95th (ft) | 0 | 0 |
| Internal Link Dist (ft) | 403 | 70 |
| Turn Bay Length (ft) | | |
| Base Capacity (vph) | 3328 | 3159 |
| Starvation Cap Reductn | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 |
| Storage Cap Reductn | 0 | 0 |
| Reduced v/c Ratio | 0.13 | 0.14 |

Intersection Summary



Lanes, Volumes, Timings
27: Genesee St & Hopper St/Court Street
02/04/2019

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 4 | 270 | 51 | 2 | 401 | 65 | 26 | 392 | 14 | 10 | 371 | 43 |
| Future Volume (vph) | 4 | 270 | 51 | 2 | 401 | 65 | 26 | 392 | 14 | 10 | 371 | 43 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Frt | | 0.976 | | | 0.979 | | | 0.995 | | | 0.985 | |
| Flt Protected | | 0.999 | | | | | | 0.997 | | | 0.999 | |
| Satd. Flow (prot) | 0 | 3491 | 0 | 0 | 3490 | 0 | 0 | 3341 | 0 | 0 | 3293 | 0 |
| Flt Permitted | | 0.950 | | | 0.954 | | | 0.908 | | | 0.942 | |
| Satd. Flow (perm) | 0 | 3320 | 0 | 0 | 3329 | 0 | 0 | 3043 | 0 | 0 | 3105 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | No | | | Yes |
| Satd. Flow (RTOR) | | 36 | | | 30 | | | | | | 20 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 183 | | | 224 | | | 440 | | | 483 | |
| Travel Time (s) | | 4.2 | | | 5.1 | | | 10.0 | | | 11.0 | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Heavy Vehicles (%) | 0% | 1% | 0% | 0% | 1% | 3% | 0% | 2% | 0% | 10% | 2% | 5% |
| Parking (#/hr) | | | | | | | | 0 | | | 0 | |
| Adj. Flow (vph) | 4 | 297 | 56 | 2 | 441 | 71 | 29 | 431 | 15 | 11 | 408 | 47 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 357 | 0 | 0 | 514 | 0 | 0 | 475 | 0 | 0 | 466 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.07 | 1.00 | 1.00 | 1.07 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Detector Phase | 4 | 4 | | 8 | 8 | | 2 | 2 | | 6 | 6 | |

## Lanes, Volumes, Timings
### 27: Genesee St & Hopper St/Court Street

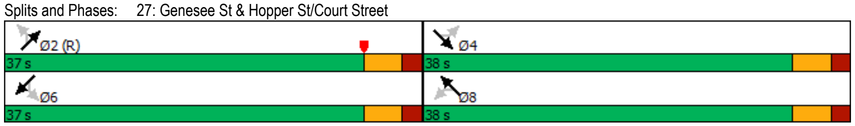
02/04/2019

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Minimum Split (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Total Split (s) | 38.0 | 38.0 | | 38.0 | 38.0 | | 37.0 | 37.0 | | 37.0 | 37.0 | |
| Total Split (%) | 50.7% | 50.7% | | 50.7% | 50.7% | | 49.3% | 49.3% | | 49.3% | 49.3% | |
| Maximum Green (s) | 32.8 | 32.8 | | 32.8 | 32.8 | | 31.8 | 31.8 | | 31.8 | 31.8 | |
| Yellow Time (s) | 3.4 | 3.4 | | 3.4 | 3.4 | | 3.4 | 3.4 | | 3.4 | 3.4 | |
| All-Red Time (s) | 1.8 | 1.8 | | 1.8 | 1.8 | | 1.8 | 1.8 | | 1.8 | 1.8 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.2 | | | 5.2 | | | 5.2 | | | 5.2 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | Max | Max | | Max | Max | | C-Max | C-Max | | Max | Max | |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 15.0 | 15.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 32.8 | | | 32.8 | | | 31.8 | | | 31.8 | |
| Actuated g/C Ratio | | 0.44 | | | 0.44 | | | 0.42 | | | 0.42 | |
| v/c Ratio | | 0.24 | | | 0.35 | | | 0.37 | | | 0.35 | |
| Control Delay | | 12.4 | | | 14.0 | | | 15.8 | | | 14.9 | |
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 12.4 | | | 14.0 | | | 15.8 | | | 14.9 | |
| LOS | | B | | | B | | | B | | | B | |
| Approach Delay | | 12.4 | | | 14.0 | | | 15.8 | | | 14.9 | |
| Approach LOS | | B | | | B | | | B | | | B | |

**Intersection Summary**

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 19.8 (26%), Referenced to phase 2:NETL, Start of Yellow
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.37
Intersection Signal Delay: 14.4 Intersection LOS: B
Intersection Capacity Utilization 51.5% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 27: Genesee St & Hopper St/Court Street






## Queues
### 27: Genesee St & Hopper St/Court Street

02/04/2019

| Lane Group | SET | NWT | NET | SWT |
|---|---|---|---|---|
| Lane Group Flow (vph) | 357 | 514 | 475 | 466 |
| v/c Ratio | 0.24 | 0.35 | 0.37 | 0.35 |
| Control Delay | 12.4 | 14.0 | 15.8 | 14.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 12.4 | 14.0 | 15.8 | 14.9 |
| Queue Length 50th (ft) | 46 | 74 | 76 | 71 |
| Queue Length 95th (ft) | 74 | 110 | 112 | 105 |
| Internal Link Dist (ft) | 103 | 144 | 360 | 403 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 1472 | 1472 | 1290 | 1328 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.24 | 0.35 | 0.37 | 0.35 |

**Intersection Summary**

# Future Build AM Synchro Reports

| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR | Ø1 | Ø2 | Ø8 |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 316 | 0 | 0 | 273 | 24 | 515 | | | |
| Future Volume (vph) | 316 | 0 | 0 | 273 | 24 | 515 | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | | | |
| Lane Util. Factor | 0.95 | 1.00 | 1.00 | 0.91 | 1.00 | 0.88 | | | |
| Frt | | | | | | 0.850 | | | |
| Flt Protected | | | | | 0.950 | | | | |
| Satd. Flow (prot) | 3539 | 0 | 0 | 5085 | 1770 | 2787 | | | |
| Flt Permitted | | | | | 0.950 | | | | |
| Satd. Flow (perm) | 3539 | 0 | 0 | 5085 | 1770 | 2787 | | | |
| Right Turn on Red | | Yes | | | | Yes | | | |
| Satd. Flow (RTOR) | | | | | | 560 | | | |
| Link Speed (mph) | 30 | | | 30 | 30 | | | | |
| Link Distance (ft) | 189 | | | 379 | 645 | | | | |
| Travel Time (s) | 4.3 | | | 8.6 | 14.7 | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | | |
| Adj. Flow (vph) | 343 | 0 | 0 | 297 | 26 | 560 | | | |
| Shared Lane Traffic (%) | | | | | | | | | |
| Lane Group Flow (vph) | 343 | 0 | 0 | 297 | 26 | 560 | | | |
| Enter Blocked Intersection | No | No | No | No | No | No | | | |
| Lane Alignment | Left | Right | Left | Left | Left | Right | | | |
| Median Width(ft) | 12 | | | 12 | 12 | | | | |
| Link Offset(ft) | 0 | | | 0 | 0 | | | | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | | | | |
| Two way Left Turn Lane | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Turning Speed (mph) | | 9 | 15 | | 15 | 9 | | | |
| Number of Detectors | 2 | | | 2 | 1 | 1 | | | |
| Detector Template | Thru | | | Thru | Left | Right | | | |
| Leading Detector (ft) | 100 | | | 100 | 20 | 20 | | | |
| Trailing Detector (ft) | 0 | | | 0 | 0 | 0 | | | |
| Detector 1 Position(ft) | 0 | | | 0 | 0 | 0 | | | |
| Detector 1 Size(ft) | 6 | | | 6 | 20 | 20 | | | |
| Detector 1 Type | Cl+Ex | | | Cl+Ex | Cl+Ex | Cl+Ex | | | |
| Detector 1 Channel | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | | | 0.0 | 0.0 | 0.0 | | | |
| Detector 1 Queue (s) | 0.0 | | | 0.0 | 0.0 | 0.0 | | | |
| Detector 1 Delay (s) | 0.0 | | | 0.0 | 0.0 | 0.0 | | | |
| Detector 2 Position(ft) | 94 | | | 94 | | | | | |
| Detector 2 Size(ft) | 6 | | | 6 | | | | | |
| Detector 2 Type | Cl+Ex | | | Cl+Ex | | | | | |
| Detector 2 Channel | | | | | | | | | |
| Detector 2 Extend (s) | 0.0 | | | 0.0 | | | | | |
| Turn Type | NA | | | NA | Prot | Prot | | | |
| Protected Phases | 2 8 | | | 6 | 9 | 9 | 1 | 2 | 8 |
| Permitted Phases | | | | | | | | | |
| Detector Phase | 2 8 | | | 6 | 9 | 9 | | | |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | | | | 10.0 | 4.0 | 4.0 | 4.0 | 10.0 | 4.0 |



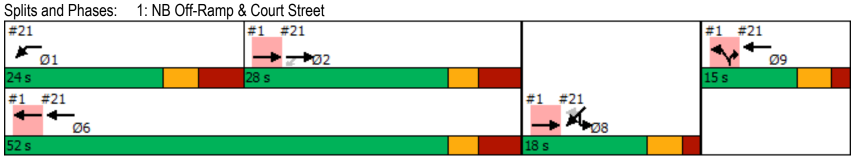


| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR | Ø1 | Ø2 | Ø8 |
|---|---|---|---|---|---|---|---|---|---|
| Minimum Split (s) | | | | 23.5 | 21.5 | 21.5 | 24.0 | 17.5 | 9.5 |
| Total Split (s) | | | | 52.0 | 15.0 | 15.0 | 24.0 | 28.0 | 18.0 |
| Total Split (%) | | | | 61.2% | 17.6% | 17.6% | 28% | 33% | 21% |
| Maximum Green (s) | | | | 44.5 | 9.5 | 9.5 | 16.0 | 20.5 | 12.5 |
| Yellow Time (s) | | | | 3.0 | 3.5 | 3.5 | 3.5 | 3.0 | 3.5 |
| All-Red Time (s) | | | | 4.5 | 2.0 | 2.0 | 4.5 | 4.5 | 2.0 |
| Lost Time Adjust (s) | | | | 0.0 | 0.0 | 0.0 | | | |
| Total Lost Time (s) | | | | 7.5 | 5.5 | 5.5 | | | |
| Lead/Lag | | | | | | | Lead | Lag | |
| Lead-Lag Optimize? | | | | | | | Yes | Yes | |
| Vehicle Extension (s) | | | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | | | | Max | None | None | None | Max | None |
| Walk Time (s) | | | | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 |
| Flash Dont Walk (s) | | | | 11.0 | 11.0 | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | | | 0 | 0 | 0 | | 0 | 0 |
| Act Effct Green (s) | 40.9 | | | 44.6 | 8.2 | 8.2 | | | |
| Actuated g/C Ratio | 0.51 | | | 0.56 | 0.10 | 0.10 | | | |
| v/c Ratio | 0.19 | | | 0.10 | 0.14 | 0.71 | | | |
| Control Delay | 3.4 | | | 9.0 | 35.4 | 9.0 | | | |
| Queue Delay | 0.2 | | | 0.0 | 0.0 | 0.0 | | | |
| Total Delay | 3.6 | | | 9.0 | 35.4 | 9.0 | | | |
| LOS | A | | | A | D | A | | | |
| Approach Delay | 3.6 | | | 9.0 | 10.2 | | | | |
| Approach LOS | A | | | A | B | | | | |

Intersection Summary

Area Type: Other
Cycle Length: 85
Actuated Cycle Length: 80.1
Natural Cycle: 75
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 8.1 Intersection LOS: A
Intersection Capacity Utilization 37.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: NB Off-Ramp & Court Street



## Queues
### 1: NB Off-Ramp & Court Street

02/20/2019

| Lane Group | EBT | WBT | NBL | NBR |
|---|---|---|---|---|
| Lane Group Flow (vph) | 343 | 297 | 26 | 560 |
| v/c Ratio | 0.19 | 0.10 | 0.14 | 0.71 |
| Control Delay | 3.4 | 9.0 | 35.4 | 9.0 |
| Queue Delay | 0.2 | 0.0 | 0.0 | 0.0 |
| Total Delay | 3.6 | 9.0 | 35.4 | 9.0 |
| Queue Length 50th (ft) | 2 | 24 | 12 | 0 |
| Queue Length 95th (ft) | 3 | 41 | 37 | 50 |
| Internal Link Dist (ft) | 109 | 299 | 565 | |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 1970 | 2829 | 210 | 824 |
| Starvation Cap Reductn | 961 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.34 | 0.10 | 0.12 | 0.68 |

Intersection Summary



## Lanes, Volumes, Timings
### 2: State Street & EB Off-Ramp

02/20/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 149 | 7 | 389 | 0 | 0 | 0 | 0 | 204 | 58 | 157 | 123 | 0 |
| Future Volume (vph) | 149 | 7 | 389 | 0 | 0 | 0 | 0 | 204 | 58 | 157 | 123 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 8 | 8 | 8 | 12 | 12 | 12 | 12 | 12 | 12 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.904 | | | | | | | 0.850 | | | |
| Flt Protected | | 0.987 | | | | | | | | | 0.973 | |
| Satd. Flow (prot) | 0 | 1662 | 0 | 0 | 0 | 0 | 0 | 1863 | 1583 | 0 | 1812 | 0 |
| Flt Permitted | | 0.987 | | | | | | | | | 0.708 | |
| Satd. Flow (perm) | 0 | 1662 | 0 | 0 | 0 | 0 | 0 | 1863 | 1583 | 0 | 1319 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 299 | | | | | | | 63 | | | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 161 | | | 214 | | | 148 | | | 268 | |
| Travel Time (s) | | 3.7 | | | 4.9 | | | 3.4 | | | 6.1 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 162 | 8 | 423 | 0 | 0 | 0 | 0 | 222 | 63 | 171 | 134 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 593 | 0 | 0 | 0 | 0 | 0 | 222 | 63 | 0 | 305 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.20 | 1.20 | 1.20 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | | | | | 2 | 1 | 1 | 2 | |
| Detector Template | Left | Thru | | | | | | Thru | Right | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | | | | | 100 | 20 | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | | | | | 0 | 0 | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | | | | | 0 | 0 | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | | | | | 6 | 20 | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | | | | | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | | | | | NA | Perm | Perm | NA | |
| Protected Phases | | 4 | | | | | | 2 | | | 2 | |
| Permitted Phases | 4 | | | | | | | | 2 | 2 | | |
| Detector Phase | 4 | 4 | | | | | | 2 | 2 | 2 | 2 | |
| Switch Phase | | | | | | | | | | | | |

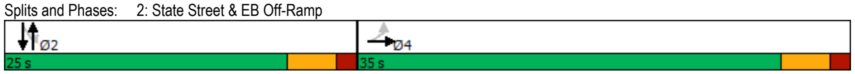
## Lanes, Volumes, Timings
## 2: State Street & EB Off-Ramp

02/20/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Initial (s) | 4.0 | 4.0 | | | | | | 4.0 | 4.0 | 4.0 | 4.0 | |
| Minimum Split (s) | 9.0 | 9.0 | | | | | | 9.0 | 9.0 | 9.0 | 9.0 | |
| Total Split (s) | 35.0 | 35.0 | | | | | | 25.0 | 25.0 | 25.0 | 25.0 | |
| Total Split (%) | 58.3% | 58.3% | | | | | | 41.7% | 41.7% | 41.7% | 41.7% | |
| Maximum Green (s) | 30.0 | 30.0 | | | | | | 20.0 | 20.0 | 20.0 | 20.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | | | | | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.5 | 1.5 | | | | | | 1.5 | 1.5 | 1.5 | 1.5 | |
| Lost Time Adjust (s) | | 0.0 | | | | | | 0.0 | 0.0 | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | | | | 5.0 | 5.0 | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | | | | | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | None | | | | | | Max | Max | Max | Max | |
| Walk Time (s) | 5.0 | 5.0 | | | | | | | | | | |
| Flash Dont Walk (s) | 15.0 | 15.0 | | | | | | | | | | |
| Pedestrian Calls (#/hr) | 0 | 0 | | | | | | | | | | |
| Act Effct Green (s) | | 16.0 | | | | | | 20.5 | 20.5 | | 20.5 | |
| Actuated g/C Ratio | | 0.34 | | | | | | 0.44 | 0.44 | | 0.44 | |
| v/c Ratio | | 0.78 | | | | | | 0.27 | 0.09 | | 0.53 | |
| Control Delay | | 13.7 | | | | | | 12.1 | 4.6 | | 17.3 | |
| Queue Delay | | 0.0 | | | | | | 0.0 | 0.0 | | 0.0 | |
| Total Delay | | 13.7 | | | | | | 12.1 | 4.6 | | 17.3 | |
| LOS | | B | | | | | | B | A | | B | |
| Approach Delay | | 13.7 | | | | | | 10.4 | | | 17.3 | |
| Approach LOS | | B | | | | | | B | | | B | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 60 | |
| Actuated Cycle Length: 46.8 | |
| Natural Cycle: 40 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.78 | |
| Intersection Signal Delay: 13.8 | Intersection LOS: B |
| Intersection Capacity Utilization 71.0% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 2: State Street & EB Off-Ramp






## Queues
## 2: State Street & EB Off-Ramp

02/20/2019

| Lane Group | EBT | NBT | NBR | SBT |
|---|---|---|---|---|
| Lane Group Flow (vph) | 593 | 222 | 63 | 305 |
| v/c Ratio | 0.78 | 0.27 | 0.09 | 0.53 |
| Control Delay | 13.7 | 12.1 | 4.6 | 17.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 13.7 | 12.1 | 4.6 | 17.3 |
| Queue Length 50th (ft) | 60 | 34 | 0 | 54 |
| Queue Length 95th (ft) | 145 | 108 | 21 | #195 |
| Internal Link Dist (ft) | 81 | 68 | | 188 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 1196 | 817 | 729 | 578 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.50 | 0.27 | 0.09 | 0.53 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 41 | 10 | 43 | 5 | 10 | 7 | 52 | 323 | 5 | 3 | 412 | 19 |
| Future Volume (vph) | 41 | 10 | 43 | 5 | 10 | 7 | 52 | 323 | 5 | 3 | 412 | 19 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 123 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.938 | | | 0.955 | | | 0.998 | | | 0.993 | |
| Flt Protected | | 0.979 | | | 0.990 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1711 | 0 | 0 | 1761 | 0 | 1770 | 1859 | 0 | 1770 | 1850 | 0 |
| Flt Permitted | | 0.848 | | | 0.942 | | 0.494 | | | 0.548 | | |
| Satd. Flow (perm) | 0 | 1482 | 0 | 0 | 1676 | 0 | 920 | 1859 | 0 | 1021 | 1850 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 47 | | | 8 | | | 2 | | | 6 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 187 | | | 250 | | | 332 | | | 138 | |
| Travel Time (s) | | 4.3 | | | 5.7 | | | 7.5 | | | 3.1 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 45 | 11 | 47 | 5 | 11 | 8 | 57 | 351 | 5 | 3 | 448 | 21 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 103 | 0 | 0 | 24 | 0 | 57 | 356 | 0 | 3 | 469 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 2 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 2 | | |

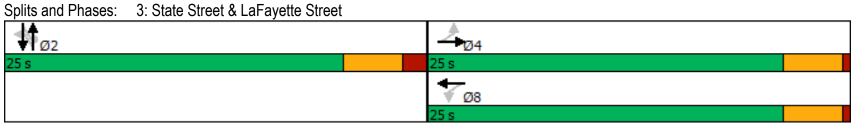




| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Detector Phase | 4 | 4 | | 8 | 8 | | 2 | 2 | | 2 | 2 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Minimum Split (s) | 20.0 | 20.0 | | 20.0 | 20.0 | | 27.0 | 27.0 | | 27.0 | 27.0 | |
| Total Split (s) | 25.0 | 25.0 | | 25.0 | 25.0 | | 25.0 | 25.0 | | 25.0 | 25.0 | |
| Total Split (%) | 50.0% | 50.0% | | 50.0% | 50.0% | | 50.0% | 50.0% | | 50.0% | 50.0% | |
| Maximum Green (s) | 21.0 | 21.0 | | 21.0 | 21.0 | | 20.0 | 20.0 | | 20.0 | 20.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 0.5 | 0.5 | | 0.5 | 0.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | | 4.0 | | | 4.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | None | None | | None | None | | Max | Max | | Max | Max | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 7.1 | | | 7.1 | | 31.1 | 31.1 | | 31.1 | 31.1 | |
| Actuated g/C Ratio | | 0.17 | | | 0.17 | | 0.75 | 0.75 | | 0.75 | 0.75 | |
| v/c Ratio | | 0.35 | | | 0.08 | | 0.08 | 0.26 | | 0.00 | 0.34 | |
| Control Delay | | 12.4 | | | 11.5 | | 4.3 | 4.4 | | 4.0 | 4.8 | |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.2 | |
| Total Delay | | 12.4 | | | 11.5 | | 4.3 | 4.4 | | 4.0 | 5.0 | |
| LOS | | B | | | B | | A | A | | A | A | |
| Approach Delay | | 12.4 | | | 11.5 | | | 4.3 | | | 5.0 | |
| Approach LOS | | B | | | B | | | A | | | A | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 50 | |
| Actuated Cycle Length: 41.5 | |
| Natural Cycle: 50 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.35 | |
| Intersection Signal Delay: 5.6 | Intersection LOS: A |
| Intersection Capacity Utilization 47.7% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 3: State Street & LaFayette Street



## Queues
## 3: State Street & LaFayette Street

02/20/2019

| Lane Group | EBT | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 103 | 24 | 57 | 356 | 3 | 469 |
| v/c Ratio | 0.35 | 0.08 | 0.08 | 0.26 | 0.00 | 0.34 |
| Control Delay | 12.4 | 11.5 | 4.3 | 4.4 | 4.0 | 4.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 |
| Total Delay | 12.4 | 11.5 | 4.3 | 4.4 | 4.0 | 5.0 |
| Queue Length 50th (ft) | 13 | 4 | 4 | 30 | 0 | 43 |
| Queue Length 95th (ft) | 37 | 15 | 17 | 74 | 2 | 103 |
| Internal Link Dist (ft) | 107 | 170 | | 252 | | 58 |
| Turn Bay Length (ft) | | | 123 | | | |
| Base Capacity (vph) | 774 | 853 | 689 | 1394 | 765 | 1388 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 321 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.13 | 0.03 | 0.08 | 0.26 | 0.00 | 0.44 |

Intersection Summary



## Lanes, Volumes, Timings
## 4: State Street & Columbia Street

02/20/2019

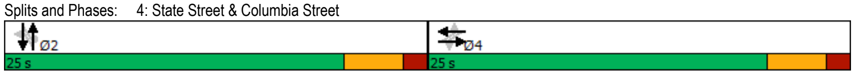
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 35 | 111 | 35 | 53 | 68 | 96 | 79 | 249 | 91 | 196 | 249 | 56 |
| Future Volume (vph) | 35 | 111 | 35 | 53 | 68 | 96 | 79 | 249 | 91 | 196 | 249 | 56 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 0 | | 0 | 114 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.974 | | | 0.941 | | | 0.960 | | | 0.972 | |
| Flt Protected | | 0.990 | | | 0.988 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1796 | 0 | 0 | 1732 | 0 | 1770 | 1788 | 0 | 1770 | 1811 | 0 |
| Flt Permitted | | 0.909 | | | 0.884 | | 0.560 | | | 0.535 | | |
| Satd. Flow (perm) | 0 | 1649 | 0 | 0 | 1550 | 0 | 1043 | 1788 | 0 | 997 | 1811 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 29 | | | 95 | | | 44 | | | 27 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 228 | | | 745 | | | 314 | | | 332 | |
| Travel Time (s) | | 5.2 | | | 16.9 | | | 7.1 | | | 7.5 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 38 | 121 | 38 | 58 | 74 | 104 | 86 | 271 | 99 | 213 | 271 | 61 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 197 | 0 | 0 | 236 | 0 | 86 | 370 | 0 | 213 | 332 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 4 | | | 2 | | | 2 | |
| Permitted Phases | 4 | | | 4 | | | 2 | | | 2 | | |

## Lanes, Volumes, Timings
### 4: State Street & Columbia Street
02/20/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Detector Phase | 4 | 4 | | 4 | 4 | | 2 | 2 | | 2 | 2 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Minimum Split (s) | 9.0 | 9.0 | | 9.0 | 9.0 | | 9.0 | 9.0 | | 9.0 | 9.0 | |
| Total Split (s) | 25.0 | 25.0 | | 25.0 | 25.0 | | 25.0 | 25.0 | | 25.0 | 25.0 | |
| Total Split (%) | 50.0% | 50.0% | | 50.0% | 50.0% | | 50.0% | 50.0% | | 50.0% | 50.0% | |
| Maximum Green (s) | 20.0 | 20.0 | | 20.0 | 20.0 | | 20.0 | 20.0 | | 20.0 | 20.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | None | None | | None | None | | Max | Max | | Max | Max | |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 15.0 | 15.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 10.3 | | | 10.3 | | 23.6 | 23.6 | | 23.6 | 23.6 | |
| Actuated g/C Ratio | | 0.23 | | | 0.23 | | 0.54 | 0.54 | | 0.54 | 0.54 | |
| v/c Ratio | | 0.48 | | | 0.54 | | 0.15 | 0.38 | | 0.40 | 0.34 | |
| Control Delay | | 15.5 | | | 13.2 | | 7.5 | 7.6 | | 10.3 | 7.5 | |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | | 15.5 | | | 13.2 | | 7.5 | 7.6 | | 10.3 | 7.5 | |
| LOS | | B | | | B | | A | A | | B | A | |
| Approach Delay | | 15.5 | | | 13.2 | | | 7.6 | | | 8.6 | |
| Approach LOS | | B | | | B | | | A | | | A | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 50 | |
| Actuated Cycle Length: 43.9 | |
| Natural Cycle: 40 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.54 | |
| Intersection Signal Delay: 10.0 | Intersection LOS: A |
| Intersection Capacity Utilization 60.1% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 4: State Street & Columbia Street






## Queues
### 4: State Street & Columbia Street
02/20/2019

| Lane Group | EBT | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 197 | 236 | 86 | 370 | 213 | 332 |
| v/c Ratio | 0.48 | 0.54 | 0.15 | 0.38 | 0.40 | 0.34 |
| Control Delay | 15.5 | 13.2 | 7.5 | 7.6 | 10.3 | 7.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 15.5 | 13.2 | 7.5 | 7.6 | 10.3 | 7.5 |
| Queue Length 50th (ft) | 34 | 28 | 9 | 37 | 25 | 34 |
| Queue Length 95th (ft) | 74 | 71 | 34 | 111 | 87 | 101 |
| Internal Link Dist (ft) | 148 | 665 | | 234 | | 252 |
| Turn Bay Length (ft) | | | | | 114 | |
| Base Capacity (vph) | 770 | 761 | 560 | 980 | 535 | 985 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.26 | 0.31 | 0.15 | 0.38 | 0.40 | 0.34 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 191 | 539 | 142 | 31 | 176 | 86 | 58 | 171 | 21 | 57 | 150 | 47 |
| Future Volume (vph) | 191 | 539 | 142 | 31 | 176 | 86 | 58 | 171 | 21 | 57 | 150 | 47 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 153 | | 0 | 350 | | 0 | 165 | | 0 | 167 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.969 | | | 0.951 | | | 0.983 | | | 0.964 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 3429 | 0 | 1770 | 3366 | 0 | 1770 | 1831 | 0 | 1770 | 1796 | 0 |
| Flt Permitted | 0.578 | | | 0.259 | | | 0.612 | | | 0.619 | | |
| Satd. Flow (perm) | 1077 | 3429 | 0 | 482 | 3366 | 0 | 1140 | 1831 | 0 | 1153 | 1796 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 74 | | | 93 | | | 14 | | | 35 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 379 | | | 719 | | | 284 | | | 564 | |
| Travel Time (s) | | 8.6 | | | 16.3 | | | 6.5 | | | 12.8 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 208 | 586 | 154 | 34 | 191 | 93 | 63 | 186 | 23 | 62 | 163 | 51 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 208 | 740 | 0 | 34 | 284 | 0 | 63 | 209 | 0 | 62 | 214 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | pm+pt | NA | | pm+pt | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | 7 | 4 | | 3 | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Minimum Split (s) | 8.0 | 20.0 | | 8.0 | 20.0 | | 20.0 | 20.0 | | 20.0 | 20.0 | |
| Total Split (s) | 8.0 | 20.0 | | 8.0 | 20.0 | | 20.0 | 20.0 | | 20.0 | 20.0 | |
| Total Split (%) | 16.7% | 41.7% | | 16.7% | 41.7% | | 41.7% | 41.7% | | 41.7% | 41.7% | |
| Maximum Green (s) | 4.0 | 16.0 | | 4.0 | 16.0 | | 16.0 | 16.0 | | 16.0 | 16.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 0.5 | 0.5 | | 0.5 | 0.5 | | 0.5 | 0.5 | | 0.5 | 0.5 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | | | | | | |
| Walk Time (s) | | 5.0 | | | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | | 0 | | | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | 20.0 | 16.0 | | 20.0 | 16.0 | | 16.0 | 16.0 | | 16.0 | 16.0 | |
| Actuated g/C Ratio | 0.42 | 0.33 | | 0.42 | 0.33 | | 0.33 | 0.33 | | 0.33 | 0.33 | |
| v/c Ratio | 0.41 | 0.62 | | 0.11 | 0.24 | | 0.17 | 0.34 | | 0.16 | 0.34 | |



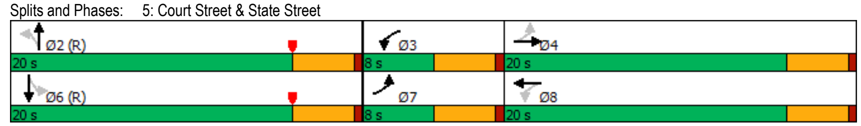


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Control Delay | 10.3 | 14.8 | | 7.2 | 8.3 | | 12.7 | 13.1 | | 12.7 | 11.9 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 10.3 | 14.8 | | 7.2 | 8.3 | | 12.7 | 13.1 | | 12.7 | 11.9 | |
| LOS | B | B | | A | A | | B | B | | B | B | |
| Approach Delay | | 13.8 | | | 8.2 | | | 13.0 | | | 12.1 | |
| Approach LOS | | B | | | A | | | B | | | B | |

Intersection Summary

Area Type: Other
Cycle Length: 48
Actuated Cycle Length: 48
Offset: 16 (33%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 50
Control Type: Pretimed
Maximum v/c Ratio: 0.62
Intersection Signal Delay: 12.4 Intersection LOS: B
Intersection Capacity Utilization 50.2% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 5: Court Street & State Street



## 5: Court Street & State Street



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 208 | 740 | 34 | 284 | 63 | 209 | 62 | 214 |
| v/c Ratio | 0.41 | 0.62 | 0.11 | 0.24 | 0.17 | 0.34 | 0.16 | 0.34 |
| Control Delay | 10.3 | 14.8 | 7.2 | 8.3 | 12.7 | 13.1 | 12.7 | 11.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 10.3 | 14.8 | 7.2 | 8.3 | 12.7 | 13.1 | 12.7 | 11.9 |
| Queue Length 50th (ft) | 29 | 78 | 4 | 19 | 12 | 40 | 12 | 36 |
| Queue Length 95th (ft) | 59 | 124 | 14 | 40 | 33 | 81 | 33 | 77 |
| Internal Link Dist (ft) | | 299 | | 639 | | 204 | | 484 |
| Turn Bay Length (ft) | 153 | | 350 | | 165 | | 167 | |
| Base Capacity (vph) | 506 | 1192 | 308 | 1184 | 380 | 619 | 384 | 622 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.41 | 0.62 | 0.11 | 0.24 | 0.17 | 0.34 | 0.16 | 0.34 |

Intersection Summary





## 6: Cornelia Street/Cornelia St & 5S



| Lane Group | EBT | EBR | WBT | WBR | NBL | NBT | NBR | SBT | SBR2 | NER |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (vph) | 1015 | 41 | 968 | 1 | 37 | 0 | 17 | 7 | 85 | 296 |
| Future Volume (vph) | 1015 | 41 | 968 | 1 | 37 | 0 | 17 | 7 | 85 | 296 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | | 0 | | 0 | 0 | | 0 | | | 0 |
| Storage Lanes | | 0 | | 0 | 0 | | 0 | | | 1 |
| Taper Length (ft) | | | | | 25 | | | | | |
| Lane Util. Factor | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.994 | | | | | 0.957 | | 0.876 | | 0.865 |
| Flt Protected | | | | | | 0.967 | | | | |
| Satd. Flow (prot) | 3485 | 0 | 3505 | 0 | 0 | 1758 | 0 | 1550 | 0 | 1596 |
| Flt Permitted | | | | | | 0.673 | | | | |
| Satd. Flow (perm) | 3485 | 0 | 3505 | 0 | 0 | 1224 | 0 | 1550 | 0 | 1596 |
| Right Turn on Red | | | | Yes | | | No | | Yes | |
| Satd. Flow (RTOR) | | | | | | | | 94 | | |
| Link Speed (mph) | 30 | | 30 | | | 30 | | 30 | | |
| Link Distance (ft) | 284 | | 699 | | | 262 | | 334 | | |
| Travel Time (s) | 6.5 | | 15.9 | | | 6.0 | | 7.6 | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 3% | 2% | 3% | 0% | 0% | 0% | 0% | 0% | 8% | 3% |
| Adj. Flow (vph) | 1128 | 46 | 1076 | 1 | 41 | 0 | 19 | 8 | 94 | 329 |
| Shared Lane Traffic (%) | | | | | | | | | | |
| Lane Group Flow (vph) | 1174 | 0 | 1077 | 0 | 0 | 60 | 0 | 102 | 0 | 329 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left | Right | Left | Right | Right |
| Median Width(ft) | 12 | | 12 | | | 0 | | 0 | | |
| Link Offset(ft) | 0 | | 0 | | | 0 | | 0 | | |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 | | 16 | | |
| Two way Left Turn Lane | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | | 9 | | 9 | 15 | | 9 | | 9 | 9 |
| Number of Detectors | 2 | | 2 | | 1 | 2 | | 2 | | 1 |
| Detector Template | Thru | | Thru | | Left | Thru | | Thru | | Right |
| Leading Detector (ft) | 100 | | 100 | | 20 | 100 | | 100 | | 20 |
| Trailing Detector (ft) | 0 | | 0 | | 0 | 0 | | 0 | | 0 |
| Detector 1 Position(ft) | 0 | | 0 | | 0 | 0 | | 0 | | 0 |
| Detector 1 Size(ft) | 6 | | 6 | | 20 | 6 | | 6 | | 20 |
| Detector 1 Type | Cl+Ex | | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | | 0.0 | | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Detector 1 Queue (s) | 0.0 | | 0.0 | | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Detector 1 Delay (s) | 0.0 | | 0.0 | | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Detector 2 Position(ft) | 94 | | 94 | | | 94 | | 94 | | |
| Detector 2 Size(ft) | 6 | | 6 | | | 6 | | 6 | | |
| Detector 2 Type | Cl+Ex | | Cl+Ex | | | Cl+Ex | | Cl+Ex | | |
| Detector 2 Channel | | | | | | | | | | |
| Detector 2 Extend (s) | 0.0 | | 0.0 | | | 0.0 | | 0.0 | | |
| Turn Type | NA | | NA | | Perm | NA | | NA | | Prot |
| Protected Phases | 2 | | 6 | | | 4 | | 8 | | 1 |

## Lanes, Volumes, Timings
### 6: Cornelia Street/Cornelia St & 5S
02/20/2019

| Lane Group | EBT | EBR | WBT | WBR | NBL | NBT | NBR | SBT | SBR2 | NER |
|---|---|---|---|---|---|---|---|---|---|---|
| Permitted Phases | | | | | 4 | | | | | |
| Detector Phase | 2 | | 6 | | 4 | 4 | | 8 | | 1 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 12.0 | | 12.0 | | 6.0 | 6.0 | | 6.0 | | 6.0 |
| Minimum Split (s) | 17.0 | | 17.0 | | 11.0 | 11.0 | | 11.0 | | 11.0 |
| Total Split (s) | 48.0 | | 82.0 | | 23.0 | 23.0 | | 23.0 | | 34.0 |
| Total Split (%) | 45.7% | | 78.1% | | 21.9% | 21.9% | | 21.9% | | 32.4% |
| Maximum Green (s) | 43.0 | | 77.0 | | 18.0 | 18.0 | | 18.0 | | 29.0 |
| Yellow Time (s) | 3.5 | | 3.5 | | 3.5 | 3.5 | | 3.5 | | 3.5 |
| All-Red Time (s) | 1.5 | | 1.5 | | 1.5 | 1.5 | | 1.5 | | 1.5 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | | | 0.0 | | 0.0 | | 0.0 |
| Total Lost Time (s) | 5.0 | | 5.0 | | | 5.0 | | 5.0 | | 5.0 |
| Lead/Lag | Lag | | | | | | | | | Lead |
| Lead-Lag Optimize? | | | | | | | | | | |
| Vehicle Extension (s) | 2.0 | | 2.0 | | 2.0 | 2.0 | | 2.0 | | 2.0 |
| Recall Mode | C-Min | | C-Min | | None | None | | None | | None |
| Act Effct Green (s) | 54.8 | | 85.8 | | | 9.2 | | 9.2 | | 26.0 |
| Actuated g/C Ratio | 0.52 | | 0.82 | | | 0.09 | | 0.09 | | 0.25 |
| v/c Ratio | 0.65 | | 0.38 | | | 0.57 | | 0.46 | | 0.83 |
| Control Delay | 22.0 | | 3.4 | | | 65.4 | | 17.8 | | 55.0 |
| Queue Delay | 0.0 | | 0.0 | | | 0.0 | | 0.0 | | 0.0 |
| Total Delay | 22.0 | | 3.4 | | | 65.4 | | 17.8 | | 55.0 |
| LOS | C | | A | | | E | | B | | D |
| Approach Delay | 22.0 | | 3.4 | | | 65.4 | | 17.8 | | |
| Approach LOS | C | | A | | | E | | B | | |

Intersection Summary

Area Type: Other
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 19.5 Intersection LOS: B
Intersection Capacity Utilization 69.9% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 6: Cornelia Street/Cornelia St & 5S




## Queues
### 6: Cornelia Street/Cornelia St & 5S
02/20/2019

| Lane Group | EBT | WBT | NBT | SBT | NER |
|---|---|---|---|---|---|
| Lane Group Flow (vph) | 1174 | 1077 | 60 | 102 | 329 |
| v/c Ratio | 0.65 | 0.38 | 0.57 | 0.46 | 0.83 |
| Control Delay | 22.0 | 3.4 | 65.4 | 17.8 | 55.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 22.0 | 3.4 | 65.4 | 17.8 | 55.0 |
| Queue Length 50th (ft) | 286 | 15 | 40 | 5 | 209 |
| Queue Length 95th (ft) | 453 | 243 | 81 | 54 | 288 |
| Internal Link Dist (ft) | 204 | 619 | 182 | 254 | |
| Turn Bay Length (ft) | | | | | |
| Base Capacity (vph) | 1818 | 2864 | 209 | 343 | 457 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.65 | 0.38 | 0.29 | 0.30 | 0.72 |

Intersection Summary

| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 326 | 53 | 141 | 208 | 12 | 39 |
| Future Volume (vph) | 326 | 53 | 141 | 208 | 12 | 39 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.981 | | | | 0.897 | |
| Flt Protected | | | | 0.980 | 0.988 | |
| Satd. Flow (prot) | 1827 | 0 | 0 | 1825 | 1651 | 0 |
| Flt Permitted | | | | 0.691 | 0.988 | |
| Satd. Flow (perm) | 1827 | 0 | 0 | 1287 | 1651 | 0 |
| Right Turn on Red | | Yes | | | | Yes |
| Satd. Flow (RTOR) | 24 | | | | 42 | |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 745 | | | 586 | 260 | |
| Travel Time (s) | 16.9 | | | 13.3 | 5.9 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 354 | 58 | 153 | 226 | 13 | 42 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 412 | 0 | 0 | 379 | 55 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 0 | | | 0 | 12 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | | 9 | 15 | | 15 | 9 |
| Turn Type | NA | | Perm | NA | Prot | |
| Protected Phases | 4 | | | 4 | 2 | |
| Permitted Phases | | | 4 | | | |
| Minimum Split (s) | 20.5 | | 20.5 | 20.5 | 20.0 | |
| Total Split (s) | 30.0 | | 30.0 | 30.0 | 20.0 | |
| Total Split (%) | 60.0% | | 60.0% | 60.0% | 40.0% | |
| Maximum Green (s) | 25.5 | | 25.5 | 25.5 | 16.0 | |
| Yellow Time (s) | 3.5 | | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | | 1.0 | 1.0 | 0.5 | |
| Lost Time Adjust (s) | 0.0 | | | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | | | 4.5 | 4.0 | |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Walk Time (s) | 5.0 | | 5.0 | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 11.0 | | 11.0 | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | | 0 | 0 | 0 | |
| Act Effct Green (s) | 25.5 | | | 25.5 | 16.0 | |
| Actuated g/C Ratio | 0.51 | | | 0.51 | 0.32 | |
| v/c Ratio | 0.44 | | | 0.58 | 0.10 | |
| Control Delay | 9.1 | | | 13.0 | 6.5 | |
| Queue Delay | 0.0 | | | 0.0 | 0.0 | |
| Total Delay | 9.1 | | | 13.0 | 6.5 | |



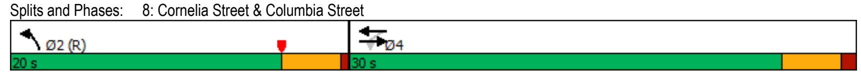


| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| LOS | A | | | B | A | |
| Approach Delay | 9.1 | | | 13.0 | 6.5 | |
| Approach LOS | A | | | B | A | |

Intersection Summary

Area Type: Other
Cycle Length: 50
Actuated Cycle Length: 50
Offset: 26 (52%), Referenced to phase 2:NBL and 6:, Start of Yellow
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.58
Intersection Signal Delay: 10.6 Intersection LOS: B
Intersection Capacity Utilization 53.3% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 8: Cornelia Street & Columbia Street



## Queues
### 8: Cornelia Street & Columbia Street
02/20/2019

| Lane Group | EBT | WBT | NBL |
|---|---|---|---|
| Lane Group Flow (vph) | 412 | 379 | 55 |
| v/c Ratio | 0.44 | 0.58 | 0.10 |
| Control Delay | 9.1 | 13.0 | 6.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 |
| Total Delay | 9.1 | 13.0 | 6.5 |
| Queue Length 50th (ft) | 64 | 69 | 3 |
| Queue Length 95th (ft) | 116 | 138 | 21 |
| Internal Link Dist (ft) | 665 | 506 | 180 |
| Turn Bay Length (ft) | | | |
| Base Capacity (vph) | 943 | 656 | 556 |
| Starvation Cap Reductn | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.44 | 0.58 | 0.10 |

Intersection Summary



## Lanes, Volumes, Timings
### 9: Cornelia Street & Court Street
02/20/2019

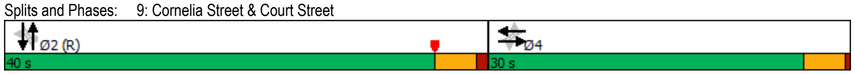
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 45 | 540 | 24 | 7 | 225 | 21 | 16 | 8 | 16 | 22 | 24 | 28 |
| Future Volume (vph) | 45 | 540 | 24 | 7 | 225 | 21 | 16 | 8 | 16 | 22 | 24 | 28 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.994 | | | 0.987 | | | 0.902 | | | 0.920 | |
| Flt Protected | | 0.996 | | | 0.999 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 3504 | 0 | 0 | 3490 | 0 | 1770 | 1680 | 0 | 1770 | 1714 | 0 |
| Flt Permitted | | 0.910 | | | 0.937 | | 0.720 | | | 0.740 | | |
| Satd. Flow (perm) | 0 | 3201 | 0 | 0 | 3273 | 0 | 1341 | 1680 | 0 | 1378 | 1714 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 7 | | | 15 | | | 17 | | | 30 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 719 | | | 412 | | | 282 | | | 633 | |
| Travel Time (s) | | 16.3 | | | 9.4 | | | 6.4 | | | 14.4 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 49 | 587 | 26 | 8 | 245 | 23 | 17 | 9 | 17 | 24 | 26 | 30 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 662 | 0 | 0 | 276 | 0 | 17 | 26 | 0 | 24 | 56 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 4 | | | 2 | | | 2 | |
| Permitted Phases | 4 | | | 4 | | | 2 | | | 2 | | |
| Minimum Split (s) | 20.0 | 20.0 | | 20.0 | 20.0 | | 20.5 | 20.5 | | 20.5 | 20.5 | |
| Total Split (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 40.0 | 40.0 | | 40.0 | 40.0 | |
| Total Split (%) | 42.9% | 42.9% | | 42.9% | 42.9% | | 57.1% | 57.1% | | 57.1% | 57.1% | |
| Maximum Green (s) | 26.0 | 26.0 | | 26.0 | 26.0 | | 35.5 | 35.5 | | 35.5 | 35.5 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 0.5 | 0.5 | | 0.5 | 0.5 | | 1.0 | 1.0 | | 1.0 | 1.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | | 4.0 | | | 4.0 | | 4.5 | 4.5 | | 4.5 | 4.5 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 26.0 | | | 26.0 | | 35.5 | 35.5 | | 35.5 | 35.5 | |
| Actuated g/C Ratio | | 0.37 | | | 0.37 | | 0.51 | 0.51 | | 0.51 | 0.51 | |
| v/c Ratio | | 0.55 | | | 0.23 | | 0.03 | 0.03 | | 0.03 | 0.06 | |
| Control Delay | | 19.4 | | | 14.9 | | 8.8 | 5.5 | | 8.9 | 5.4 | |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | | 19.4 | | | 14.9 | | 8.8 | 5.5 | | 8.9 | 5.4 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOS | | B | | | B | | A | A | | A | A | |
| Approach Delay | | 19.4 | | | 14.9 | | | 6.8 | | | 6.5 | |
| Approach LOS | | B | | | B | | | A | | | A | |

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 25.5 (36%), Referenced to phase 2:NBSB and 6:, Start of Yellow
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.55
Intersection Signal Delay: 16.7 Intersection LOS: B
Intersection Capacity Utilization 42.4% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 9: Cornelia Street & Court Street








| Lane Group | EBT | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 662 | 276 | 17 | 26 | 24 | 56 |
| v/c Ratio | 0.55 | 0.23 | 0.03 | 0.03 | 0.03 | 0.06 |
| Control Delay | 19.4 | 14.9 | 8.8 | 5.5 | 8.9 | 5.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 19.4 | 14.9 | 8.8 | 5.5 | 8.9 | 5.4 |
| Queue Length 50th (ft) | 114 | 39 | 3 | 2 | 5 | 5 |
| Queue Length 95th (ft) | 164 | 65 | 12 | 12 | 16 | 21 |
| Internal Link Dist (ft) | 639 | 332 | | 202 | | 553 |
| Turn Bay Length (ft) | | | | | | |
| Base Capacity (vph) | 1193 | 1225 | 680 | 860 | 698 | 884 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.55 | 0.23 | 0.03 | 0.03 | 0.03 | 0.06 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 68 | 931 | 103 | 217 | 941 | 0 | 69 | 27 | 28 | 32 | 69 | 17 |
| Future Volume (vph) | 68 | 931 | 103 | 217 | 941 | 0 | 69 | 27 | 28 | 32 | 69 | 17 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 257 | | 0 | 253 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.985 | | | | | | 0.924 | | | 0.970 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 3486 | 0 | 1770 | 3539 | 0 | 1770 | 1721 | 0 | 1770 | 1807 | 0 |
| Flt Permitted | 0.207 | | | 0.173 | | | 0.420 | | | 0.717 | | |
| Satd. Flow (perm) | 386 | 3486 | 0 | 322 | 3539 | 0 | 782 | 1721 | 0 | 1336 | 1807 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 19 | | | | | | 31 | | | 9 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 699 | | | 306 | | | 481 | | | 508 | |
| Travel Time (s) | | 15.9 | | | 7.0 | | | 10.9 | | | 11.5 | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Adj. Flow (vph) | 76 | 1034 | 114 | 241 | 1046 | 0 | 77 | 30 | 31 | 36 | 77 | 19 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 76 | 1148 | 0 | 241 | 1046 | 0 | 77 | 61 | 0 | 36 | 96 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | | 4 | |
| Permitted Phases | 2 | | | 6 | | | 8 | | | 4 | | |





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Detector Phase | 5 | 2 | | 1 | 6 | | 3 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 15.0 | | 6.0 | 15.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 11.0 | 20.0 | | 11.0 | 20.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Total Split (s) | 11.0 | 66.0 | | 15.0 | 70.0 | | 11.0 | 24.0 | | 13.0 | 13.0 | |
| Total Split (%) | 10.5% | 62.9% | | 14.3% | 66.7% | | 10.5% | 22.9% | | 12.4% | 12.4% | |
| Maximum Green (s) | 6.0 | 61.0 | | 10.0 | 65.0 | | 6.0 | 19.0 | | 8.0 | 8.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Lead/Lag | Lag | Lead | | Lag | Lead | | Lead | | | Lag | Lag | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 2.0 | 2.0 | | 3.0 | 3.0 | | 3.0 | 2.0 | | 2.0 | 2.0 | |
| Recall Mode | None | C-Min | | None | C-Min | | None | None | | None | None | |
| Act Effct Green (s) | 71.3 | 60.9 | | 72.0 | 63.0 | | 18.9 | 18.9 | | 8.7 | 8.7 | |
| Actuated g/C Ratio | 0.68 | 0.58 | | 0.69 | 0.60 | | 0.18 | 0.18 | | 0.08 | 0.08 | |
| v/c Ratio | 0.19 | 0.57 | | 0.67 | 0.49 | | 0.37 | 0.18 | | 0.33 | 0.61 | |
| Control Delay | 4.1 | 6.5 | | 20.3 | 20.9 | | 40.4 | 21.5 | | 53.3 | 59.2 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 4.1 | 6.5 | | 20.3 | 20.9 | | 40.4 | 21.5 | | 53.3 | 59.2 | |
| LOS | A | A | | C | C | | D | C | | D | E | |
| Approach Delay | | 6.3 | | | 20.8 | | | 32.1 | | | 57.6 | |
| Approach LOS | | A | | | C | | | C | | | E | |

**Intersection Summary**

Area Type: Other
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 72 (69%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 16.7 Intersection LOS: B
Intersection Capacity Utilization 64.0% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 10: Broadway & 5S

## Queues
## 10: Broadway & 5S

02/20/2019

| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 76 | 1148 | 241 | 1046 | 77 | 61 | 36 | 96 |
| v/c Ratio | 0.19 | 0.57 | 0.67 | 0.49 | 0.37 | 0.18 | 0.33 | 0.61 |
| Control Delay | 4.1 | 6.5 | 20.3 | 20.9 | 40.4 | 21.5 | 53.3 | 59.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 4.1 | 6.5 | 20.3 | 20.9 | 40.4 | 21.5 | 53.3 | 59.2 |
| Queue Length 50th (ft) | 9 | 124 | 50 | 256 | 42 | 16 | 23 | 57 |
| Queue Length 95th (ft) | m15 | 116 | 66 | 317 | 88 | 53 | 57 | #132 |
| Internal Link Dist (ft) | | 619 | | 226 | | 401 | | 428 |
| Turn Bay Length (ft) | 257 | | 253 | | | | | |
| Base Capacity (vph) | 398 | 2156 | 392 | 2352 | 209 | 376 | 115 | 164 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.19 | 0.53 | 0.61 | 0.44 | 0.37 | 0.16 | 0.31 | 0.59 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



## Lanes, Volumes, Timings
## 11: Broadway & La Fayette Street

02/20/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 20 | 28 | 2 | 66 | 66 | 28 | 0 | 92 | 30 | 22 | 143 | 0 |
| Future Volume (vph) | 20 | 28 | 2 | 66 | 66 | 28 | 0 | 92 | 30 | 22 | 143 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.995 | | | 0.977 | | | 0.967 | | | | |
| Flt Protected | | 0.980 | | | 0.980 | | | | | | 0.993 | |
| Satd. Flow (prot) | 0 | 1816 | 0 | 0 | 1784 | 0 | 0 | 1801 | 0 | 0 | 1850 | 0 |
| Flt Permitted | | 0.892 | | | 0.878 | | | | | | 0.956 | |
| Satd. Flow (perm) | 0 | 1653 | 0 | 0 | 1598 | 0 | 0 | 1801 | 0 | 0 | 1781 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 2 | | | 25 | | | 30 | | | | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 632 | | | 310 | | | 359 | | | 481 | |
| Travel Time (s) | | 14.4 | | | 7.0 | | | 8.2 | | | 10.9 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 22 | 30 | 2 | 72 | 72 | 30 | 0 | 100 | 33 | 24 | 155 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 54 | 0 | 0 | 174 | 0 | 0 | 133 | 0 | 0 | 179 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Perm | NA | | Perm | NA | | | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 4 | | | 2 | | | 2 | |
| Permitted Phases | 4 | | | 4 | | | 2 | | | 2 | | |
| Minimum Split (s) | 20.5 | 20.5 | | 20.5 | 20.5 | | 20.5 | 20.5 | | 20.5 | 20.5 | |
| Total Split (s) | 35.0 | 35.0 | | 35.0 | 35.0 | | 25.0 | 25.0 | | 25.0 | 25.0 | |
| Total Split (%) | 58.3% | 58.3% | | 58.3% | 58.3% | | 41.7% | 41.7% | | 41.7% | 41.7% | |
| Maximum Green (s) | 30.5 | 30.5 | | 30.5 | 30.5 | | 20.5 | 20.5 | | 20.5 | 20.5 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 0.5 | 0.5 | | 0.5 | 0.5 | | 0.5 | 0.5 | | 0.5 | 0.5 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 4.5 | | | 4.5 | | | 4.5 | | | 4.5 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 30.5 | | | 30.5 | | | 20.5 | | | 20.5 | |
| Actuated g/C Ratio | | 0.51 | | | 0.51 | | | 0.34 | | | 0.34 | |
| v/c Ratio | | 0.06 | | | 0.21 | | | 0.21 | | | 0.29 | |
| Control Delay | | 7.6 | | | 7.7 | | | 12.1 | | | 16.1 | |
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 7.6 | | | 7.7 | | | 12.1 | | | 16.1 | |

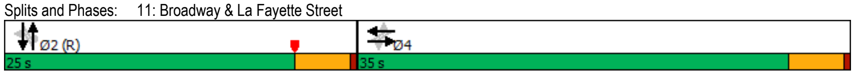
## Lanes, Volumes, Timings
## 11: Broadway & La Fayette Street

02/20/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOS | | A | | | A | | | B | | | B | |
| Approach Delay | | 7.6 | | | 7.7 | | | 12.1 | | | 16.1 | |
| Approach LOS | | A | | | A | | | B | | | B | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 20.5 (34%), Referenced to phase 2:NBSB and 6:, Start of Yellow | |
| Natural Cycle: 45 | |
| Control Type: Pretimed | |
| Maximum v/c Ratio: 0.29 | |
| Intersection Signal Delay: 11.6 | Intersection LOS: B |
| Intersection Capacity Utilization 38.2% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 11: Broadway & La Fayette Street






## Queues
## 11: Broadway & La Fayette Street

02/20/2019

| Lane Group | EBT | WBT | NBT | SBT |
|---|---|---|---|---|
| Lane Group Flow (vph) | 54 | 174 | 133 | 179 |
| v/c Ratio | 0.06 | 0.21 | 0.21 | 0.29 |
| Control Delay | 7.6 | 7.7 | 12.1 | 16.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 7.6 | 7.7 | 12.1 | 16.1 |
| Queue Length 50th (ft) | 9 | 27 | 25 | 46 |
| Queue Length 95th (ft) | 23 | 56 | 59 | 89 |
| Internal Link Dist (ft) | 552 | 230 | 279 | 401 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 841 | 824 | 635 | 608 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.21 | 0.21 | 0.29 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 46 | 291 | 38 | 17 | 244 | 16 | 7 | 71 | 50 | 16 | 62 | 102 |
| Future Volume (vph) | 46 | 291 | 38 | 17 | 244 | 16 | 7 | 71 | 50 | 16 | 62 | 102 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.986 | | | 0.992 | | | 0.948 | | | 0.923 | |
| Flt Protected | | 0.994 | | | 0.997 | | | 0.997 | | | 0.996 | |
| Satd. Flow (prot) | 0 | 1826 | 0 | 0 | 1842 | 0 | 0 | 1761 | 0 | 0 | 1712 | 0 |
| Flt Permitted | | 0.935 | | | 0.971 | | | 0.983 | | | 0.973 | |
| Satd. Flow (perm) | 0 | 1717 | 0 | 0 | 1794 | 0 | 0 | 1736 | 0 | 0 | 1673 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 16 | | | 9 | | | 54 | | | 111 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 586 | | | 664 | | | 949 | | | 359 | |
| Travel Time (s) | | 13.3 | | | 15.1 | | | 21.6 | | | 8.2 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 50 | 316 | 41 | 18 | 265 | 17 | 8 | 77 | 54 | 17 | 67 | 111 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 407 | 0 | 0 | 300 | 0 | 0 | 139 | 0 | 0 | 195 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 4 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 4 | | | 2 | | | 6 | | |
| Minimum Split (s) | 20.5 | 20.5 | | 20.5 | 20.5 | | 20.0 | 20.0 | | 20.0 | 20.0 | |
| Total Split (s) | 35.0 | 35.0 | | 35.0 | 35.0 | | 20.0 | 20.0 | | 20.0 | 20.0 | |
| Total Split (%) | 63.6% | 63.6% | | 63.6% | 63.6% | | 36.4% | 36.4% | | 36.4% | 36.4% | |
| Maximum Green (s) | 30.5 | 30.5 | | 30.5 | 30.5 | | 16.0 | 16.0 | | 16.0 | 16.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 0.5 | 0.5 | | 0.5 | 0.5 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 4.5 | | | 4.5 | | | 4.0 | | | 4.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 30.5 | | | 30.5 | | | 16.0 | | | 16.0 | |
| Actuated g/C Ratio | | 0.55 | | | 0.55 | | | 0.29 | | | 0.29 | |
| v/c Ratio | | 0.42 | | | 0.30 | | | 0.26 | | | 0.35 | |
| Control Delay | | 8.5 | | | 7.4 | | | 10.4 | | | 9.3 | |
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 8.5 | | | 7.4 | | | 10.4 | | | 9.3 | |



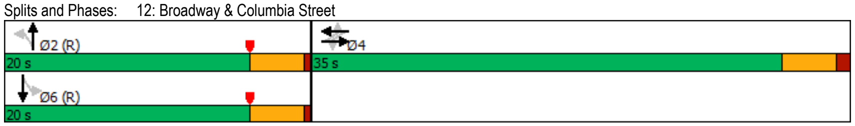


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOS | | A | | | A | | | B | | | A | |
| Approach Delay | | 8.5 | | | 7.4 | | | 10.4 | | | 9.3 | |
| Approach LOS | | A | | | A | | | B | | | A | |

Intersection Summary

Area Type: Other
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 1 (2%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.42
Intersection Signal Delay: 8.6 Intersection LOS: A
Intersection Capacity Utilization 54.9% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 12: Broadway & Columbia Street



| Lane Group | EBT | WBT | NBT | SBT |
|---|---|---|---|---|
| Lane Group Flow (vph) | 407 | 300 | 139 | 195 |
| v/c Ratio | 0.42 | 0.30 | 0.26 | 0.35 |
| Control Delay | 8.5 | 7.4 | 10.4 | 9.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 8.5 | 7.4 | 10.4 | 9.3 |
| Queue Length 50th (ft) | 65 | 49 | 22 | 20 |
| Queue Length 95th (ft) | 117 | 73 | 51 | 62 |
| Internal Link Dist (ft) | 506 | 584 | 869 | 279 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 959 | 998 | 543 | 565 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.42 | 0.30 | 0.26 | 0.35 |

Intersection Summary





| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 150 | 418 | 218 | 35 | 16 | 41 |
| Future Volume (vph) | 150 | 418 | 218 | 35 | 16 | 41 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 | 1.00 |
| Frt | | | 0.979 | | 0.902 | |
| Flt Protected | | 0.987 | | | 0.986 | |
| Satd. Flow (prot) | 0 | 3493 | 3465 | 0 | 1657 | 0 |
| Flt Permitted | | 0.987 | | | 0.986 | |
| Satd. Flow (perm) | 0 | 3493 | 3465 | 0 | 1657 | 0 |
| Link Speed (mph) | | 30 | 30 | | 30 | |
| Link Distance (ft) | | 412 | 231 | | 949 | |
| Travel Time (s) | | 9.4 | 5.3 | | 21.6 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 163 | 454 | 237 | 38 | 17 | 45 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 617 | 275 | 0 | 62 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 0 | 0 | | 12 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Sign Control | | Free | Free | | Stop | |

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 36.5% ICU Level of Service A
Analysis Period (min) 15

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.4 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 150 | 418 | 218 | 35 | 16 | 41 |
| Future Vol, veh/h | 150 | 418 | 218 | 35 | 16 | 41 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 163 | 454 | 237 | 38 | 17 | 45 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 275 | 0 | - | 0 | 809 | 138 |
| Stage 1 | - | - | - | - | 256 | - |
| Stage 2 | - | - | - | - | 553 | - |
| Critical Hdwy | 4.14 | - | - | - | 6.84 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.84 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.84 | - |
| Follow-up Hdwy | 2.22 | - | - | - | 3.52 | 3.32 |
| Pot Cap-1 Maneuver | 1285 | - | - | - | 318 | 885 |
| Stage 1 | - | - | - | - | 763 | - |
| Stage 2 | - | - | - | - | 540 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1285 | - | - | - | 264 | 885 |
| Mov Cap-2 Maneuver | - | - | - | - | 264 | - |
| Stage 1 | - | - | - | - | 633 | - |
| Stage 2 | - | - | - | - | 540 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 2.5 | 0 | 12.6 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1285 | - | - | - | 533 |
| HCM Lane V/C Ratio | 0.127 | - | - | - | 0.116 |
| HCM Control Delay (s) | 8.2 | 0.4 | - | - | 12.6 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0.4 | - | - | - | 0.4 |





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 967 | 7 | 0 | 1152 | 3 | 0 | 0 | 9 | 0 | 0 | 8 |
| Future Volume (vph) | 0 | 967 | 7 | 0 | 1152 | 3 | 0 | 0 | 9 | 0 | 0 | 8 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 100 | | 0 | 100 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 1 | 0 | | 0 | 0 | | 1 | 0 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.999 | | | | | | | 0.865 | | | 0.865 |
| Flt Protected | | | | | | | | | | | | |
| Satd. Flow (prot) | 0 | 3536 | 0 | 0 | 3539 | 0 | 0 | 0 | 1611 | 0 | 0 | 1611 |
| Flt Permitted | | | | | | | | | | | | |
| Satd. Flow (perm) | 0 | 3536 | 0 | 0 | 3539 | 0 | 0 | 0 | 1611 | 0 | 0 | 1611 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 306 | | | 333 | | | 450 | | | 317 | |
| Travel Time (s) | | 7.0 | | | 7.6 | | | 10.2 | | | 7.2 | |
| Confl. Peds. (#/hr) | | | | | | | 15 | | | | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Adj. Flow (vph) | 0 | 1074 | 8 | 0 | 1280 | 3 | 0 | 0 | 10 | 0 | 0 | 9 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1082 | 0 | 0 | 1283 | 0 | 0 | 0 | 10 | 0 | 0 | 9 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Sign Control | | Free | | | Free | | | Yield | | | Yield | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |
| Intersection Capacity Utilization 41.9% | ICU Level of Service A |
| Analysis Period (min) 15 | |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 8 | 28 | 66 | 10 | 14 | 15 |
| Future Volume (vph) | 8 | 28 | 66 | 10 | 14 | 15 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | 0.982 | | 0.930 | |
| Flt Protected | | 0.989 | | | 0.976 | |
| Satd. Flow (prot) | 0 | 1842 | 1829 | 0 | 1691 | 0 |
| Flt Permitted | | 0.989 | | | 0.976 | |
| Satd. Flow (perm) | 0 | 1842 | 1829 | 0 | 1691 | 0 |
| Link Speed (mph) | | 30 | 30 | | 30 | |
| Link Distance (ft) | | 310 | 319 | | 450 | |
| Travel Time (s) | | 7.0 | 7.3 | | 10.2 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 9 | 30 | 72 | 11 | 15 | 16 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 39 | 83 | 0 | 31 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 0 | 0 | | 12 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Sign Control | | Free | Free | | Stop | |

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 18.4% ICU Level of Service A
Analysis Period (min) 15





| Intersection | |
|---|---|
| Int Delay, s/veh | 2.3 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 8 | 28 | 66 | 10 | 14 | 15 |
| Future Vol, veh/h | 8 | 28 | 66 | 10 | 14 | 15 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 9 | 30 | 72 | 11 | 15 | 16 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 83 | 0 | - | 0 | 126 | 78 |
| Stage 1 | - | - | - | - | 78 | - |
| Stage 2 | - | - | - | - | 48 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1514 | - | - | - | 869 | 983 |
| Stage 1 | - | - | - | - | 945 | - |
| Stage 2 | - | - | - | - | 974 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1514 | - | - | - | 864 | 983 |
| Mov Cap-2 Maneuver | - | - | - | - | 864 | - |
| Stage 1 | - | - | - | - | 939 | - |
| Stage 2 | - | - | - | - | 974 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 1.6 | 0 | 9 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1514 | - | - | - | 922 |
| HCM Lane V/C Ratio | 0.006 | - | - | - | 0.034 |
| HCM Control Delay (s) | 7.4 | 0 | - | - | 9 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.1 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 76 | 887 | 46 | 0 | 1064 | 15 | 0 | 0 | 11 | 0 | 0 | 88 |
| Future Volume (vph) | 76 | 887 | 46 | 0 | 1064 | 15 | 0 | 0 | 11 | 0 | 0 | 88 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | 0 | 150 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 1 | | 0 | 0 | | 0 | 0 | | 1 | 0 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.993 | | | 0.998 | | | | 0.865 | | | 0.865 |
| Flt Protected | 0.950 | | | | | | | | | | | |
| Satd. Flow (prot) | 1752 | 3485 | 0 | 0 | 3532 | 0 | 0 | 0 | 1644 | 0 | 0 | 1644 |
| Flt Permitted | 0.950 | | | | | | | | | | | |
| Satd. Flow (perm) | 1752 | 3485 | 0 | 0 | 3532 | 0 | 0 | 0 | 1644 | 0 | 0 | 1644 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 333 | | | 392 | | | 423 | | | 252 | |
| Travel Time (s) | | 7.6 | | | 8.9 | | | 9.6 | | | 5.7 | |
| Peak Hour Factor | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 |
| Heavy Vehicles (%) | 3% | 3% | 0% | 2% | 2% | 2% | 0% | 2% | 0% | 2% | 2% | 0% |
| Adj. Flow (vph) | 92 | 1069 | 55 | 0 | 1282 | 18 | 0 | 0 | 13 | 0 | 0 | 106 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 92 | 1124 | 0 | 0 | 1300 | 0 | 0 | 0 | 13 | 0 | 0 | 106 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Sign Control | | Free | | | Free | | | Yield | | | Yield | |

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 42.0% ICU Level of Service A
Analysis Period (min) 15





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 15 | 28 | 4 | 7 | 68 | 15 | 4 | 3 | 4 | 14 | 3 | 62 |
| Future Volume (vph) | 15 | 28 | 4 | 7 | 68 | 15 | 4 | 3 | 4 | 14 | 3 | 62 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.989 | | | 0.978 | | | 0.951 | | | 0.894 | |
| Flt Protected | | 0.984 | | | 0.996 | | | 0.982 | | | 0.991 | |
| Satd. Flow (prot) | 0 | 1813 | 0 | 0 | 1814 | 0 | 0 | 1740 | 0 | 0 | 1650 | 0 |
| Flt Permitted | | 0.984 | | | 0.996 | | | 0.982 | | | 0.991 | |
| Satd. Flow (perm) | 0 | 1813 | 0 | 0 | 1814 | 0 | 0 | 1740 | 0 | 0 | 1650 | 0 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 319 | | | 216 | | | 181 | | | 423 | |
| Travel Time (s) | | 7.3 | | | 4.9 | | | 4.1 | | | 9.6 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 16 | 30 | 4 | 8 | 74 | 16 | 4 | 3 | 4 | 15 | 3 | 67 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 50 | 0 | 0 | 98 | 0 | 0 | 11 | 0 | 0 | 85 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 18.5% ICU Level of Service A
Analysis Period (min) 15

| Intersection | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Int Delay, s/veh | 4.4 | | | | | | | | | | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 15 | 28 | 4 | 7 | 68 | 15 | 4 | 3 | 4 | 14 | 3 | 62 |
| Future Vol, veh/h | 15 | 28 | 4 | 7 | 68 | 15 | 4 | 3 | 4 | 14 | 3 | 62 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 16 | 30 | 4 | 8 | 74 | 16 | 4 | 3 | 4 | 15 | 3 | 67 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 90 | 0 | 0 | 34 | 0 | 0 | 197 | 170 | 32 | 166 | 164 | 82 |
| Stage 1 | - | - | - | - | - | - | 64 | 64 | - | 98 | 98 | - |
| Stage 2 | - | - | - | - | - | - | 133 | 106 | - | 68 | 66 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1505 | - | - | 1578 | - | - | 762 | 723 | 1042 | 798 | 729 | 978 |
| Stage 1 | - | - | - | - | - | - | 947 | 842 | - | 908 | 814 | - |
| Stage 2 | - | - | - | - | - | - | 870 | 807 | - | 942 | 840 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1505 | - | - | 1578 | - | - | 699 | 711 | 1042 | 782 | 717 | 978 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 699 | 711 | - | 782 | 717 | - |
| Stage 1 | - | - | - | - | - | - | 937 | 833 | - | 898 | 810 | - |
| Stage 2 | - | - | - | - | - | - | 803 | 803 | - | 924 | 831 | - |

| Approach | EB | | | WB | | | NB | | | SB |
|---|---|---|---|---|---|---|---|---|---|---|
| HCM Control Delay, s | 2.4 | | | 0.6 | | | 9.6 | | | 9.3 |
| HCM LOS | | | | | | | A | | | A |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 798 | 1505 | - | - | 1578 | - | - | 924 |
| HCM Lane V/C Ratio | 0.015 | 0.011 | - | - | 0.005 | - | - | 0.093 |
| HCM Control Delay (s) | 9.6 | 7.4 | 0 | - | 7.3 | 0 | - | 9.3 |
| HCM Lane LOS | A | A | A | - | A | A | - | A |
| HCM 95th %tile Q(veh) | 0 | 0 | - | - | 0 | - | - | 0.3 |





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 5 | 780 | 170 | 164 | 855 | 7 | 45 | 178 | 51 | 41 | 499 | 35 |
| Future Volume (vph) | 5 | 780 | 170 | 164 | 855 | 7 | 45 | 178 | 51 | 41 | 499 | 35 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | 150 | 150 | | 0 | 150 | | 0 | 150 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 |
| Frt | | 0.973 | | | 0.999 | | | 0.967 | | | 0.990 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 3478 | 0 | 1770 | 3502 | 0 | 1770 | 1662 | 0 | 1770 | 3472 | 0 |
| Flt Permitted | 0.212 | | | 0.156 | | | 0.217 | | | 0.404 | | |
| Satd. Flow (perm) | 395 | 3478 | 0 | 291 | 3502 | 0 | 404 | 1662 | 0 | 753 | 3472 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 30 | | | 1 | | | 15 | | | 7 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 392 | | | 616 | | | 464 | | | 307 | |
| Travel Time (s) | | 8.9 | | | 14.0 | | | 10.5 | | | 7.0 | |
| Peak Hour Factor | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 |
| Heavy Vehicles (%) | 2% | 1% | 1% | 2% | 3% | 2% | 2% | 13% | 2% | 2% | 3% | 2% |
| Adj. Flow (vph) | 6 | 907 | 198 | 191 | 994 | 8 | 52 | 207 | 59 | 48 | 580 | 41 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 6 | 1105 | 0 | 191 | 1002 | 0 | 52 | 266 | 0 | 48 | 621 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | pm+pt | NA | | pm+pt | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |

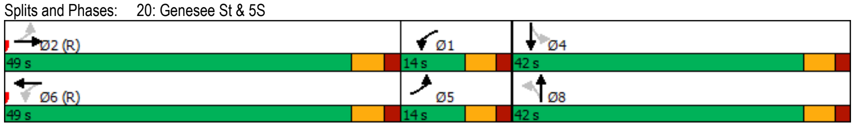
## Lanes, Volumes, Timings
## 20: Genesee St & 5S
02/20/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Permitted Phases | 2 | | | 6 | | | 8 | | | 4 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 8 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 8.0 | 15.0 | | 8.0 | 15.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 14.0 | 46.0 | | 14.0 | 46.0 | | 42.0 | 42.0 | | 42.0 | 42.0 | |
| Total Split (s) | 14.0 | 49.0 | | 14.0 | 49.0 | | 42.0 | 42.0 | | 42.0 | 42.0 | |
| Total Split (%) | 13.3% | 46.7% | | 13.3% | 46.7% | | 40.0% | 40.0% | | 40.0% | 40.0% | |
| Maximum Green (s) | 8.0 | 43.0 | | 8.0 | 43.0 | | 36.0 | 36.0 | | 36.0 | 36.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Lead/Lag | Lag | Lead | | Lag | Lead | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 1.0 | | 3.0 | 3.0 | | 2.5 | 2.5 | | 2.5 | 2.5 | |
| Recall Mode | None | C-Min | | None | C-Min | | None | None | | None | None | |
| Walk Time (s) | | 7.0 | | | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | | 33.0 | | | 33.0 | | 29.0 | 29.0 | | 29.0 | 29.0 | |
| Pedestrian Calls (#/hr) | | 0 | | | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | 60.7 | 52.7 | | 67.1 | 65.5 | | 24.7 | 24.7 | | 24.7 | 24.7 | |
| Actuated g/C Ratio | 0.58 | 0.50 | | 0.64 | 0.62 | | 0.24 | 0.24 | | 0.24 | 0.24 | |
| v/c Ratio | 0.02 | 0.63 | | 0.60 | 0.46 | | 0.55 | 0.66 | | 0.27 | 0.75 | |
| Control Delay | 2.4 | 8.9 | | 30.5 | 13.0 | | 56.0 | 41.8 | | 35.0 | 42.7 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 2.4 | 8.9 | | 30.5 | 13.0 | | 56.0 | 41.8 | | 35.0 | 42.7 | |
| LOS | A | A | | C | B | | E | D | | D | D | |
| Approach Delay | | 8.8 | | | 15.8 | | | 44.1 | | | 42.1 | |
| Approach LOS | | A | | | B | | | D | | | D | |

**Intersection Summary**

Area Type: Other
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 94 (90%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 105
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 21.5 Intersection LOS: C
Intersection Capacity Utilization 76.0% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 20: Genesee St & 5S






## Queues
## 20: Genesee St & 5S
02/20/2019

| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 6 | 1105 | 191 | 1002 | 52 | 266 | 48 | 621 |
| v/c Ratio | 0.02 | 0.63 | 0.60 | 0.46 | 0.55 | 0.66 | 0.27 | 0.75 |
| Control Delay | 2.4 | 8.9 | 30.5 | 13.0 | 56.0 | 41.8 | 35.0 | 42.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 2.4 | 8.9 | 30.5 | 13.0 | 56.0 | 41.8 | 35.0 | 42.7 |
| Queue Length 50th (ft) | 1 | 86 | 45 | 156 | 31 | 154 | 27 | 203 |
| Queue Length 95th (ft) | m1 | 111 | #90 | 311 | 66 | 209 | 54 | 230 |
| Internal Link Dist (ft) | | 312 | | 536 | | 384 | | 227 |
| Turn Bay Length (ft) | 150 | | 150 | | 150 | | 150 | |
| Base Capacity (vph) | 333 | 1761 | 320 | 2183 | 138 | 579 | 258 | 1195 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.02 | 0.63 | 0.60 | 0.46 | 0.38 | 0.46 | 0.19 | 0.52 |

**Intersection Summary**

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 212 | 69 | 185 | 112 | 0 | 0 | 0 | 0 | 104 | 26 | 10 |
| Future Volume (vph) | 0 | 212 | 69 | 185 | 112 | 0 | 0 | 0 | 0 | 104 | 26 | 10 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 0.97 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 |
| Frt | | | 0.850 | | | | | | | | | 0.850 |
| Flt Protected | | | | 0.950 | | | | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 3539 | 1583 | 3433 | 1863 | 0 | 0 | 0 | 0 | 3433 | 1863 | 1583 |
| Flt Permitted | | | | 0.950 | | | | | | 0.950 | | |
| Satd. Flow (perm) | 0 | 3539 | 1583 | 3433 | 1863 | 0 | 0 | 0 | 0 | 3433 | 1863 | 1583 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 205 | | | | | | | | | 231 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 195 | | | 189 | | | 268 | | | 305 | |
| Travel Time (s) | | 4.4 | | | 4.3 | | | 6.1 | | | 6.9 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 0 | 230 | 75 | 201 | 122 | 0 | 0 | 0 | 0 | 113 | 28 | 11 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 230 | 75 | 201 | 122 | 0 | 0 | 0 | 0 | 113 | 28 | 11 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 24 | | | 24 | | | 24 | | | 24 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | | 2 | 1 | 1 | 2 | | | | | 1 | 2 | 1 |
| Detector Template | | Thru | Right | Left | Thru | | | | | Left | Thru | Right |
| Leading Detector (ft) | | 100 | 20 | 20 | 100 | | | | | 20 | 100 | 20 |
| Trailing Detector (ft) | | 0 | 0 | 0 | 0 | | | | | 0 | 0 | 0 |
| Detector 1 Position(ft) | | 0 | 0 | 0 | 0 | | | | | 0 | 0 | 0 |
| Detector 1 Size(ft) | | 6 | 20 | 20 | 6 | | | | | 20 | 6 | 20 |
| Detector 1 Type | | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | | | | | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | | 0.0 | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | | 0.0 | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | | 0.0 | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(ft) | | 94 | | | 94 | | | | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | | | 0.0 | |
| Turn Type | | NA | Perm | Prot | NA | | | | | Split | NA | Perm |
| Protected Phases | | 2 | | 1 | 6 9 | | | | | 8 | 8 | |
| Permitted Phases | | | 2 | | | | | | | | | 8 |
| Detector Phase | | 2 | 2 | 1 | 6 9 | | | | | 8 | 8 | 8 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | 10.0 | 10.0 | 4.0 | | | | | | 4.0 | 4.0 | 4.0 |



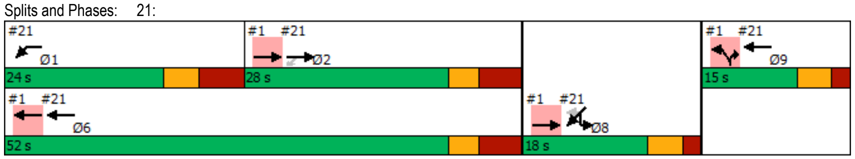


| Lane Group | Ø6 | Ø9 |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | | |
| Future Volume (vph) | | |
| Ideal Flow (vphpl) | | |
| Lane Util. Factor | | |
| Frt | | |
| Flt Protected | | |
| Satd. Flow (prot) | | |
| Flt Permitted | | |
| Satd. Flow (perm) | | |
| Right Turn on Red | | |
| Satd. Flow (RTOR) | | |
| Link Speed (mph) | | |
| Link Distance (ft) | | |
| Travel Time (s) | | |
| Peak Hour Factor | | |
| Adj. Flow (vph) | | |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | | |
| Enter Blocked Intersection | | |
| Lane Alignment | | |
| Median Width(ft) | | |
| Link Offset(ft) | | |
| Crosswalk Width(ft) | | |
| Two way Left Turn Lane | | |
| Headway Factor | | |
| Turning Speed (mph) | | |
| Number of Detectors | | |
| Detector Template | | |
| Leading Detector (ft) | | |
| Trailing Detector (ft) | | |
| Detector 1 Position(ft) | | |
| Detector 1 Size(ft) | | |
| Detector 1 Type | | |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | | |
| Detector 1 Queue (s) | | |
| Detector 1 Delay (s) | | |
| Detector 2 Position(ft) | | |
| Detector 2 Size(ft) | | |
| Detector 2 Type | | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | | |
| Turn Type | | |
| Protected Phases | 6 | 9 |
| Permitted Phases | | |
| Detector Phase | | |
| Switch Phase | | |
| Minimum Initial (s) | 10.0 | 4.0 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Split (s) | | 17.5 | 17.5 | 24.0 | | | | | | 9.5 | 9.5 | 9.5 |
| Total Split (s) | | 28.0 | 28.0 | 24.0 | | | | | | 18.0 | 18.0 | 18.0 |
| Total Split (%) | | 32.9% | 32.9% | 28.2% | | | | | | 21.2% | 21.2% | 21.2% |
| Maximum Green (s) | | 20.5 | 20.5 | 16.0 | | | | | | 12.5 | 12.5 | 12.5 |
| Yellow Time (s) | | 3.0 | 3.0 | 3.5 | | | | | | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | | 4.5 | 4.5 | 4.5 | | | | | | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | | 0.0 | 0.0 | 0.0 | | | | | | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | | 7.5 | 7.5 | 8.0 | | | | | | 5.5 | 5.5 | 5.5 |
| Lead/Lag | | Lag | Lag | Lead | | | | | | | | |
| Lead-Lag Optimize? | | Yes | Yes | Yes | | | | | | | | |
| Vehicle Extension (s) | | 3.0 | 3.0 | 3.0 | | | | | | 3.0 | 3.0 | 3.0 |
| Recall Mode | | Max | Max | None | | | | | | None | None | None |
| Walk Time (s) | | 5.0 | 5.0 | | | | | | | 5.0 | 5.0 | 5.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | | | | | | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 0 | 0 | | | | | | | 0 | 0 | 0 |
| Act Effct Green (s) | | 26.6 | 26.6 | 10.0 | 58.3 | | | | | 8.8 | 8.8 | 8.8 |
| Actuated g/C Ratio | | 0.33 | 0.33 | 0.12 | 0.73 | | | | | 0.11 | 0.11 | 0.11 |
| v/c Ratio | | 0.20 | 0.11 | 0.47 | 0.09 | | | | | 0.30 | 0.14 | 0.03 |
| Control Delay | | 21.2 | 0.3 | 27.6 | 1.3 | | | | | 35.0 | 33.8 | 0.1 |
| Queue Delay | | 0.0 | 0.0 | 0.1 | 0.8 | | | | | 0.0 | 0.0 | 0.0 |
| Total Delay | | 21.2 | 0.3 | 27.8 | 2.1 | | | | | 35.0 | 33.8 | 0.1 |
| LOS | | C | A | C | A | | | | | C | C | A |
| Approach Delay | | 16.1 | | | 18.1 | | | | | | 32.2 | |
| Approach LOS | | B | | | B | | | | | | C | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 85 | |
| Actuated Cycle Length: 80.1 | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.71 | |
| Intersection Signal Delay: 20.1 | Intersection LOS: C |
| Intersection Capacity Utilization 37.6% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 21:








| Lane Group | Ø6 | Ø9 |
|---|---|---|
| Minimum Split (s) | 23.5 | 21.5 |
| Total Split (s) | 52.0 | 15.0 |
| Total Split (%) | 61% | 18% |
| Maximum Green (s) | 44.5 | 9.5 |
| Yellow Time (s) | 3.0 | 3.5 |
| All-Red Time (s) | 4.5 | 2.0 |
| Lost Time Adjust (s) | | |
| Total Lost Time (s) | | |
| Lead/Lag | | |
| Lead-Lag Optimize? | | |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | Max | None |
| Walk Time (s) | 5.0 | 5.0 |
| Flash Dont Walk (s) | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | 0 | 0 |
| Act Effct Green (s) | | |
| Actuated g/C Ratio | | |
| v/c Ratio | | |
| Control Delay | | |
| Queue Delay | | |
| Total Delay | | |
| LOS | | |
| Approach Delay | | |
| Approach LOS | | |

Intersection Summary

| Lane Group | EBT | EBR | WBL | WBT | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 230 | 75 | 201 | 122 | 113 | 28 | 11 |
| v/c Ratio | 0.20 | 0.11 | 0.47 | 0.09 | 0.30 | 0.14 | 0.03 |
| Control Delay | 21.2 | 0.3 | 27.6 | 1.3 | 35.0 | 33.8 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.1 | 0.8 | 0.0 | 0.0 | 0.0 |
| Total Delay | 21.2 | 0.3 | 27.8 | 2.1 | 35.0 | 33.8 | 0.1 |
| Queue Length 50th (ft) | 43 | 0 | 30 | 3 | 27 | 13 | 0 |
| Queue Length 95th (ft) | 79 | 0 | 45 | 6 | 51 | 37 | 0 |
| Internal Link Dist (ft) | 115 | | | 109 | | 225 | |
| Turn Bay Length (ft) | | | | | | | |
| Base Capacity (vph) | 1173 | 662 | 686 | 1278 | 536 | 291 | 442 |
| Starvation Cap Reductn | 0 | 0 | 85 | 939 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.20 | 0.11 | 0.33 | 0.36 | 0.21 | 0.10 | 0.02 |

Intersection Summary





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 41 | 13 | 12 | 77 | 5 | 9 | 20 | 193 | 21 | 84 | 541 | 47 |
| Future Volume (vph) | 41 | 13 | 12 | 77 | 5 | 9 | 20 | 193 | 21 | 84 | 541 | 47 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Frt | | 0.976 | | | 0.986 | | | 0.986 | | | 0.990 | |
| Flt Protected | | 0.970 | | | 0.959 | | | 0.996 | | | 0.994 | |
| Satd. Flow (prot) | 0 | 1763 | 0 | 0 | 1761 | 0 | 0 | 3476 | 0 | 0 | 3483 | 0 |
| Flt Permitted | | 0.794 | | | 0.767 | | | 0.870 | | | 0.862 | |
| Satd. Flow (perm) | 0 | 1444 | 0 | 0 | 1409 | 0 | 0 | 3036 | 0 | 0 | 3020 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 10 | | | 5 | | | 14 | | | 14 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 216 | | | 304 | | | 420 | | | 464 | |
| Travel Time (s) | | 4.9 | | | 6.9 | | | 9.5 | | | 10.5 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 45 | 14 | 13 | 84 | 5 | 10 | 22 | 210 | 23 | 91 | 588 | 51 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 72 | 0 | 0 | 99 | 0 | 0 | 255 | 0 | 0 | 730 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | pm+pt | NA | |
| Protected Phases | | 4 | | | 8 | | | 6 | | 5 | 2 | |
| Permitted Phases | 4 | | | 8 | | | 6 | | | 2 | | |
| Detector Phase | 4 | 4 | | 8 | 8 | | 6 | 6 | | 5 | 2 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |

## Lanes, Volumes, Timings
## 22: La Fayette Street/Bleecker Street
02/20/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Split (s) | 23.0 | 23.0 | | 23.0 | 23.0 | | 23.0 | 23.0 | | 9.0 | 23.0 | |
| Total Split (s) | 34.0 | 34.0 | | 34.0 | 34.0 | | 65.0 | 65.0 | | 11.0 | 76.0 | |
| Total Split (%) | 30.9% | 30.9% | | 30.9% | 30.9% | | 59.1% | 59.1% | | 10.0% | 69.1% | |
| Maximum Green (s) | 27.0 | 27.0 | | 27.0 | 27.0 | | 58.0 | 58.0 | | 6.0 | 71.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 2.0 | 2.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 7.0 | | | 7.0 | | | 7.0 | | | 5.0 | |
| Lead/Lag | | | | | | | Lag | Lag | | Lead | | |
| Lead-Lag Optimize? | | | | | | | Yes | Yes | | Yes | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | None | None | | None | None | | C-Max | C-Max | | None | C-Max | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | | 0 | |
| Act Effct Green (s) | | 13.3 | | | 13.3 | | | 82.7 | | | 84.7 | |
| Actuated g/C Ratio | | 0.12 | | | 0.12 | | | 0.75 | | | 0.77 | |
| v/c Ratio | | 0.39 | | | 0.57 | | | 0.11 | | | 0.31 | |
| Control Delay | | 43.1 | | | 54.9 | | | 9.2 | | | 4.6 | |
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.3 | |
| Total Delay | | 43.1 | | | 54.9 | | | 9.2 | | | 4.9 | |
| LOS | | D | | | D | | | A | | | A | |
| Approach Delay | | 43.1 | | | 54.9 | | | 9.2 | | | 4.9 | |
| Approach LOS | | D | | | D | | | A | | | A | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 110 | |
| Actuated Cycle Length: 110 | |
| Offset: 0 (0%), Referenced to phase 2:SWTL and 6:NETL, Start of Yellow | |
| Natural Cycle: 55 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.57 | |
| Intersection Signal Delay: 12.5 | Intersection LOS: B |
| Intersection Capacity Utilization 48.1% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 22: La Fayette Street/Bleecker Street




## Queues
## 22: La Fayette Street/Bleecker Street
02/20/2019

| Lane Group | EBT | WBT | NET | SWT |
|---|---|---|---|---|
| Lane Group Flow (vph) | 72 | 99 | 255 | 730 |
| v/c Ratio | 0.39 | 0.57 | 0.11 | 0.31 |
| Control Delay | 43.1 | 54.9 | 9.2 | 4.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.3 |
| Total Delay | 43.1 | 54.9 | 9.2 | 4.9 |
| Queue Length 50th (ft) | 41 | 64 | 50 | 66 |
| Queue Length 95th (ft) | 82 | 113 | m81 | 114 |
| Internal Link Dist (ft) | 136 | 224 | 340 | 384 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 361 | 349 | 2285 | 2328 |
| Starvation Cap Reductn | 0 | 0 | 0 | 950 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.20 | 0.28 | 0.11 | 0.53 |

| Intersection Summary |
|---|
| m Volume for 95th percentile queue is metered by upstream signal. |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 48 | 220 | 52 | 11 | 73 | 20 | 51 | 183 | 23 | 99 | 362 | 172 |
| Future Volume (vph) | 48 | 220 | 52 | 11 | 73 | 20 | 51 | 183 | 23 | 99 | 362 | 172 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Frt | | 0.978 | | | 0.974 | | | 0.987 | | | 0.959 | |
| Flt Protected | | 0.993 | | | 0.995 | | | 0.990 | | | 0.992 | |
| Satd. Flow (prot) | 0 | 1809 | 0 | 0 | 1805 | 0 | 0 | 3458 | 0 | 0 | 3367 | 0 |
| Flt Permitted | | 0.934 | | | 0.927 | | | 0.743 | | | 0.826 | |
| Satd. Flow (perm) | 0 | 1702 | 0 | 0 | 1682 | 0 | 0 | 2595 | 0 | 0 | 2804 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 9 | | | 11 | | | 13 | | | 89 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 664 | | | 274 | | | 195 | | | 420 | |
| Travel Time (s) | | 15.1 | | | 6.2 | | | 4.4 | | | 9.5 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 52 | 239 | 57 | 12 | 79 | 22 | 55 | 199 | 25 | 108 | 393 | 187 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 348 | 0 | 0 | 113 | 0 | 0 | 279 | 0 | 0 | 688 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | pm+pt | NA | |
| Protected Phases | | 4 | | | 8 | | | 6 | | 5 | 2 | |
| Permitted Phases | 4 | | | 8 | | | 6 | | | 2 | | |
| Detector Phase | 4 | 4 | | 8 | 8 | | 6 | 6 | | 5 | 2 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Split (s) | 14.0 | 14.0 | | 14.0 | 14.0 | | 23.5 | 23.5 | | 23.5 | 23.5 | |
| Total Split (s) | 36.0 | 36.0 | | 36.0 | 36.0 | | 62.0 | 62.0 | | 12.0 | 74.0 | |
| Total Split (%) | 32.7% | 32.7% | | 32.7% | 32.7% | | 56.4% | 56.4% | | 10.9% | 67.3% | |
| Maximum Green (s) | 29.0 | 29.0 | | 29.0 | 29.0 | | 55.0 | 55.0 | | 6.0 | 67.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 2.0 | 3.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 7.0 | | | 7.0 | | | 7.0 | | | 7.0 | |
| Lead/Lag | | | | | | | Lag | Lag | | Lead | | |
| Lead-Lag Optimize? | | | | | | | Yes | Yes | | Yes | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | None | None | | None | None | | C-Max | C-Max | | None | C-Max | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 25.8 | | | 25.8 | | | 70.2 | | | 70.2 | |
| Actuated g/C Ratio | | 0.23 | | | 0.23 | | | 0.64 | | | 0.64 | |
| v/c Ratio | | 0.86 | | | 0.28 | | | 0.17 | | | 0.38 | |
| Control Delay | | 54.5 | | | 31.9 | | | 12.2 | | | 7.6 | |
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.2 | |
| Total Delay | | 54.5 | | | 31.9 | | | 12.2 | | | 7.8 | |
| LOS | | D | | | C | | | B | | | A | |
| Approach Delay | | 54.5 | | | 31.9 | | | 12.2 | | | 7.8 | |
| Approach LOS | | D | | | C | | | B | | | A | |

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 68 (62%), Referenced to phase 2:SWTL and 6:NETL, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 22.0 Intersection LOS: C
Intersection Capacity Utilization 67.2% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 23: Columbia Street/Elizabeth Street

| Lane Group | EBT | WBT | NET | SWT |
|---|---|---|---|---|
| Lane Group Flow (vph) | 348 | 113 | 279 | 688 |
| v/c Ratio | 0.86 | 0.28 | 0.17 | 0.38 |
| Control Delay | 54.5 | 31.9 | 12.2 | 7.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.2 |
| Total Delay | 54.5 | 31.9 | 12.2 | 7.8 |
| Queue Length 50th (ft) | 231 | 58 | 61 | 81 |
| Queue Length 95th (ft) | #359 | 106 | 92 | 114 |
| Internal Link Dist (ft) | 584 | 194 | 115 | 340 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 455 | 451 | 1661 | 1822 |
| Starvation Cap Reductn | 0 | 0 | 0 | 460 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.76 | 0.25 | 0.17 | 0.51 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.





| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 80 | 30 | 27 | 78 | 0 | 0 | 0 | 0 | 533 | 54 | 0 |
| Future Volume (vph) | 0 | 80 | 30 | 27 | 78 | 0 | 0 | 0 | 0 | 533 | 54 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 100 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 1 | | 0 | 0 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 |
| Frt | | 0.959 | | | | | | | | | | |
| Flt Protected | | | | 0.950 | | | | | | 0.950 | 0.961 | |
| Satd. Flow (prot) | 0 | 3394 | 0 | 1770 | 1863 | 0 | 0 | 0 | 0 | 1681 | 1701 | 0 |
| Flt Permitted | | | | 0.676 | | | | | | 0.950 | 0.961 | |
| Satd. Flow (perm) | 0 | 3394 | 0 | 1259 | 1863 | 0 | 0 | 0 | 0 | 1681 | 1701 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 33 | | | | | | | | | | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 342 | | | 169 | | | 195 | | | 367 | |
| Travel Time (s) | | 7.8 | | | 3.8 | | | 4.4 | | | 8.3 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 0 | 87 | 33 | 29 | 85 | 0 | 0 | 0 | 0 | 579 | 59 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | 45% | | |
| Lane Group Flow (vph) | 0 | 120 | 0 | 29 | 85 | 0 | 0 | 0 | 0 | 318 | 320 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | | 2 | | 1 | 2 | | | | | 1 | 2 | |
| Detector Template | | Thru | | Left | Thru | | | | | Left | Thru | |
| Leading Detector (ft) | | 100 | | 20 | 100 | | | | | 20 | 100 | |
| Trailing Detector (ft) | | 0 | | 0 | 0 | | | | | 0 | 0 | |
| Detector 1 Position(ft) | | 0 | | 0 | 0 | | | | | 0 | 0 | |
| Detector 1 Size(ft) | | 6 | | 20 | 6 | | | | | 20 | 6 | |
| Detector 1 Type | | Cl+Ex | | Cl+Ex | Cl+Ex | | | | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | | 0.0 | | 0.0 | 0.0 | | | | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | | 0.0 | | 0.0 | 0.0 | | | | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | | 0.0 | | 0.0 | 0.0 | | | | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | | | 0.0 | |
| Turn Type | | NA | | Perm | NA | | | | | Perm | NA | |
| Protected Phases | | 1 | | | 1 | | | | | | 4 | |
| Permitted Phases | | | | 1 | | | | | | 4 | | |

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Detector Phase | | 1 | | 1 | 1 | | | | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | 4.0 | | 4.0 | 4.0 | | | | | 4.0 | 4.0 | |
| Minimum Split (s) | | 9.0 | | 9.0 | 9.0 | | | | | 26.0 | 26.0 | |
| Total Split (s) | | 20.0 | | 20.0 | 20.0 | | | | | 60.0 | 60.0 | |
| Total Split (%) | | 25.0% | | 25.0% | 25.0% | | | | | 75.0% | 75.0% | |
| Maximum Green (s) | | 15.0 | | 15.0 | 15.0 | | | | | 55.0 | 55.0 | |
| Yellow Time (s) | | 3.5 | | 3.5 | 3.5 | | | | | 3.5 | 3.5 | |
| All-Red Time (s) | | 1.5 | | 1.5 | 1.5 | | | | | 1.5 | 1.5 | |
| Lost Time Adjust (s) | | 0.0 | | 0.0 | 0.0 | | | | | 0.0 | 0.0 | |
| Total Lost Time (s) | | 5.0 | | 5.0 | 5.0 | | | | | 5.0 | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | | 2.0 | | 2.0 | 2.0 | | | | | 2.0 | 2.0 | |
| Recall Mode | | None | | None | None | | | | | None | None | |
| Walk Time (s) | | 7.0 | | 7.0 | 7.0 | | | | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | | 14.0 | | 14.0 | 14.0 | | | | | 14.0 | 14.0 | |
| Pedestrian Calls (#/hr) | | 25 | | 25 | 25 | | | | | 25 | 25 | |
| Act Effct Green (s) | | 8.3 | | 8.3 | 8.3 | | | | | 12.1 | 12.1 | |
| Actuated g/C Ratio | | 0.29 | | 0.29 | 0.29 | | | | | 0.42 | 0.42 | |
| v/c Ratio | | 0.12 | | 0.08 | 0.16 | | | | | 0.45 | 0.45 | |
| Control Delay | | 7.7 | | 10.2 | 10.4 | | | | | 9.9 | 9.9 | |
| Queue Delay | | 0.0 | | 0.0 | 0.0 | | | | | 0.0 | 0.0 | |
| Total Delay | | 7.7 | | 10.2 | 10.4 | | | | | 9.9 | 9.9 | |
| LOS | | A | | B | B | | | | | A | A | |
| Approach Delay | | 7.7 | | | 10.4 | | | | | | 9.9 | |
| Approach LOS | | A | | | B | | | | | | A | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 80 | |
| Actuated Cycle Length: 28.7 | |
| Natural Cycle: 40 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.45 | |
| Intersection Signal Delay: 9.6 | Intersection LOS: A |
| Intersection Capacity Utilization 32.7% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 24: Broad St & Genesee St SB Off-Ramp






| Lane Group | SET | NWL | NWT | SWL | SWT |
|---|---|---|---|---|---|
| Lane Group Flow (vph) | 120 | 29 | 85 | 318 | 320 |
| v/c Ratio | 0.12 | 0.08 | 0.16 | 0.45 | 0.45 |
| Control Delay | 7.7 | 10.2 | 10.4 | 9.9 | 9.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 7.7 | 10.2 | 10.4 | 9.9 | 9.9 |
| Queue Length 50th (ft) | 4 | 3 | 9 | 27 | 27 |
| Queue Length 95th (ft) | 20 | 17 | 37 | 132 | 132 |
| Internal Link Dist (ft) | 262 | | 89 | | 287 |
| Turn Bay Length (ft) | | 100 | | | |
| Base Capacity (vph) | 2128 | 784 | 1161 | 1681 | 1701 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.04 | 0.07 | 0.19 | 0.19 |

Intersection Summary

| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 17 | 6 | 3 | 3 | 231 | 7 | 85 | 299 | 30 |
| Future Volume (vph) | 0 | 0 | 0 | 17 | 6 | 3 | 3 | 231 | 7 | 85 | 299 | 30 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Frt | | | | | 0.986 | | | 0.995 | | | 0.989 | |
| Flt Protected | | | | | 0.969 | | | 0.999 | | | 0.990 | |
| Satd. Flow (prot) | 0 | 0 | 0 | 0 | 1780 | 0 | 0 | 3518 | 0 | 0 | 3465 | 0 |
| Flt Permitted | | | | | 0.969 | | | 0.952 | | | 0.816 | |
| Satd. Flow (perm) | 0 | 0 | 0 | 0 | 1780 | 0 | 0 | 3352 | 0 | 0 | 2856 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | | | 3 | | | 6 | | | 16 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 313 | | | 160 | | | 152 | | | 194 | |
| Travel Time (s) | | 7.1 | | | 3.6 | | | 3.5 | | | 4.4 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 0 | 0 | 0 | 18 | 7 | 3 | 3 | 251 | 8 | 92 | 325 | 33 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 0 | 0 | 28 | 0 | 0 | 262 | 0 | 0 | 450 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | | | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | | | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | | | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | | | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | | | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | | | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | | | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | | | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | | | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | | | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | | | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | | | | 4 | | | 2 | | | 2 | |
| Permitted Phases | | | | 4 | | | 2 | | | 2 | | |
| Detector Phase | | | | 4 | 4 | | 2 | 2 | | 2 | 2 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |





| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Split (s) | | | | 28.0 | 28.0 | | 28.0 | 28.0 | | 28.0 | 28.0 | |
| Total Split (s) | | | | 30.0 | 30.0 | | 80.0 | 80.0 | | 80.0 | 80.0 | |
| Total Split (%) | | | | 27.3% | 27.3% | | 72.7% | 72.7% | | 72.7% | 72.7% | |
| Maximum Green (s) | | | | 24.0 | 24.0 | | 74.0 | 74.0 | | 74.0 | 74.0 | |
| Yellow Time (s) | | | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | | | | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Lost Time Adjust (s) | | | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | | | | 6.0 | | | 6.0 | | | 6.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | | | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | | | | None | None | | C-Max | C-Max | | C-Max | C-Max | |
| Walk Time (s) | | | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | | | | 15.0 | 15.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | |
| Pedestrian Calls (#/hr) | | | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | | | | 7.1 | | | 98.0 | | | 98.0 | |
| Actuated g/C Ratio | | | | | 0.06 | | | 0.89 | | | 0.89 | |
| v/c Ratio | | | | | 0.24 | | | 0.09 | | | 0.18 | |
| Control Delay | | | | | 49.2 | | | 0.2 | | | 2.0 | |
| Queue Delay | | | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | | | | 49.2 | | | 0.2 | | | 2.0 | |
| LOS | | | | | D | | | A | | | A | |
| Approach Delay | | | | | 49.2 | | | 0.2 | | | 2.0 | |
| Approach LOS | | | | | D | | | A | | | A | |

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 57 (52%), Referenced to phase 2:NESW and 6:, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.24
Intersection Signal Delay: 3.2 Intersection LOS: A
Intersection Capacity Utilization 37.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 25: Blandina Street & Genesee Street

## Queues
## 25: Blandina Street & Genesee Street

02/20/2019

| Lane Group | SBT | NET | SWT |
|---|---|---|---|
| Lane Group Flow (vph) | 28 | 262 | 450 |
| v/c Ratio | 0.24 | 0.09 | 0.18 |
| Control Delay | 49.2 | 0.2 | 2.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 |
| Total Delay | 49.2 | 0.2 | 2.0 |
| Queue Length 50th (ft) | 17 | 1 | 17 |
| Queue Length 95th (ft) | 46 | 2 | 60 |
| Internal Link Dist (ft) | 80 | 72 | 114 |
| Turn Bay Length (ft) | | | |
| Base Capacity (vph) | 390 | 2986 | 2545 |
| Starvation Cap Reductn | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.07 | 0.09 | 0.18 |

| Intersection Summary |
|---|



## Lanes, Volumes, Timings
## 26: Genesee St & Bank Place

02/20/2019

| Lane Group | NBL | NBR | NET | NER | SWL | SWT | Ø4 |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 245 | 18 | 23 | 280 | |
| Future Volume (vph) | 0 | 0 | 245 | 18 | 23 | 280 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 | |
| Frt | | | 0.990 | | | | |
| Flt Protected | | | | | | 0.996 | |
| Satd. Flow (prot) | 0 | 0 | 3504 | 0 | 0 | 3525 | |
| Flt Permitted | | | | | | 0.918 | |
| Satd. Flow (perm) | 0 | 0 | 3504 | 0 | 0 | 3249 | |
| Right Turn on Red | | Yes | | Yes | | | |
| Satd. Flow (RTOR) | | | 20 | | | | |
| Link Speed (mph) | 30 | | 30 | | | 30 | |
| Link Distance (ft) | 399 | | 483 | | | 150 | |
| Travel Time (s) | 9.1 | | 11.0 | | | 3.4 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | |
| Adj. Flow (vph) | 0 | 0 | 266 | 20 | 25 | 304 | |
| Shared Lane Traffic (%) | | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 286 | 0 | 0 | 329 | |
| Enter Blocked Intersection | No | No | No | No | No | No | |
| Lane Alignment | Left | Right | Left | Right | Left | Left | |
| Median Width(ft) | 0 | | 0 | | | 0 | |
| Link Offset(ft) | 0 | | 0 | | | 0 | |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | | |
| Number of Detectors | | | 2 | | 1 | 2 | |
| Detector Template | | | Thru | | Left | Thru | |
| Leading Detector (ft) | | | 100 | | 20 | 100 | |
| Trailing Detector (ft) | | | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | | | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | | | 6 | | 20 | 6 | |
| Detector 1 Type | | | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | |
| Detector 1 Extend (s) | | | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | | | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | | | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | | 6 | | | 6 | |
| Detector 2 Type | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | |
| Detector 2 Extend (s) | | | 0.0 | | | 0.0 | |
| Turn Type | | | NA | | Perm | NA | |
| Protected Phases | | | 6 | | | 2 | 4 |
| Permitted Phases | | | | | 2 | | |
| Detector Phase | | | 6 | | 2 | 2 | |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | | | 5.0 | | 5.0 | 5.0 | 15.0 |

| Lane Group | NBL | NBR | NET | NER | SWL | SWT | Ø4 |
|---|---|---|---|---|---|---|---|
| Minimum Split (s) | | | 23.0 | | 27.0 | 27.0 | 22.0 |
| Total Split (s) | | | 88.0 | | 88.0 | 88.0 | 22.0 |
| Total Split (%) | | | 80.0% | | 80.0% | 80.0% | 20% |
| Maximum Green (s) | | | 83.0 | | 83.0 | 83.0 | 18.0 |
| Yellow Time (s) | | | 3.0 | | 3.0 | 3.0 | 3.5 |
| All-Red Time (s) | | | 2.0 | | 2.0 | 2.0 | 0.5 |
| Lost Time Adjust (s) | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | |
| Lead-Lag Optimize? | | | | | | | |
| Vehicle Extension (s) | | | 3.0 | | 3.0 | 3.0 | 3.0 |
| Recall Mode | | | C-Max | | C-Max | C-Max | None |
| Walk Time (s) | | | 5.0 | | 5.0 | 5.0 | 5.0 |
| Flash Dont Walk (s) | | | 11.0 | | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | | 0 | | 0 | 0 | 0 |
| Act Effct Green (s) | | | 110.0 | | | 110.0 | |
| Actuated g/C Ratio | | | 1.00 | | | 1.00 | |
| v/c Ratio | | | 0.08 | | | 0.10 | |
| Control Delay | | | 0.0 | | | 0.1 | |
| Queue Delay | | | 0.0 | | | 0.0 | |
| Total Delay | | | 0.0 | | | 0.1 | |
| LOS | | | A | | | A | |
| Approach Delay | | | | | | 0.1 | |
| Approach LOS | | | | | | A | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 110 | |
| Actuated Cycle Length: 110 | |
| Offset: 12 (11%), Referenced to phase 2:SWTL and 6:NET, Start of Yellow | |
| Natural Cycle: 50 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.10 | |
| Intersection Signal Delay: 0.1 | Intersection LOS: A |
| Intersection Capacity Utilization 24.1% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 26: Genesee St & Bank Place






| Lane Group | NET | SWT |
|---|---|---|
| Lane Group Flow (vph) | 286 | 329 |
| v/c Ratio | 0.08 | 0.10 |
| Control Delay | 0.0 | 0.1 |
| Queue Delay | 0.0 | 0.0 |
| Total Delay | 0.0 | 0.1 |
| Queue Length 50th (ft) | 0 | 0 |
| Queue Length 95th (ft) | 0 | 0 |
| Internal Link Dist (ft) | 403 | 70 |
| Turn Bay Length (ft) | | |
| Base Capacity (vph) | 3504 | 3249 |
| Starvation Cap Reductn | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 |
| Storage Cap Reductn | 0 | 0 |
| Reduced v/c Ratio | 0.08 | 0.10 |

Intersection Summary

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 4 | 319 | 81 | 1 | 180 | 26 | 10 | 299 | 23 | 6 | 246 | 33 |
| Future Volume (vph) | 4 | 319 | 81 | 1 | 180 | 26 | 10 | 299 | 23 | 6 | 246 | 33 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Frt | | 0.970 | | | 0.981 | | | 0.990 | | | 0.983 | |
| Flt Protected | | | | | | | | 0.998 | | | 0.999 | |
| Satd. Flow (prot) | 0 | 3433 | 0 | 0 | 3472 | 0 | 0 | 3497 | 0 | 0 | 3476 | 0 |
| Flt Permitted | | 0.952 | | | 0.954 | | | 0.943 | | | 0.947 | |
| Satd. Flow (perm) | 0 | 3268 | 0 | 0 | 3312 | 0 | 0 | 3304 | 0 | 0 | 3295 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 27 | | | 14 | | | 13 | | | 25 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 231 | | | 224 | | | 440 | | | 483 | |
| Travel Time (s) | | 5.3 | | | 5.1 | | | 10.0 | | | 11.0 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 4 | 347 | 88 | 1 | 196 | 28 | 11 | 325 | 25 | 7 | 267 | 36 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 439 | 0 | 0 | 225 | 0 | 0 | 361 | 0 | 0 | 310 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Detector Phase | 4 | 4 | | 8 | 8 | | 2 | 2 | | 6 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |





| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Split (s) | 55.0 | 55.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 55.0 | 55.0 | |
| Total Split (s) | 35.0 | 35.0 | | 35.0 | 35.0 | | 75.0 | 75.0 | | 75.0 | 75.0 | |
| Total Split (%) | 31.8% | 31.8% | | 31.8% | 31.8% | | 68.2% | 68.2% | | 68.2% | 68.2% | |
| Maximum Green (s) | 29.0 | 29.0 | | 29.0 | 29.0 | | 69.0 | 69.0 | | 69.0 | 69.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | | 6.0 | | | 6.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | None | None | | Max | Max | | C-Max | C-Max | | C-Max | C-Max | |
| Walk Time (s) | 11.0 | 11.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | | 11.0 | 11.0 | |
| Flash Dont Walk (s) | 38.0 | 38.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | | 38.0 | 38.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 29.0 | | | 29.0 | | | 69.0 | | | 69.0 | |
| Actuated g/C Ratio | | 0.26 | | | 0.26 | | | 0.63 | | | 0.63 | |
| v/c Ratio | | 0.50 | | | 0.25 | | | 0.17 | | | 0.15 | |
| Control Delay | | 34.4 | | | 30.8 | | | 8.5 | | | 11.3 | |
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 34.4 | | | 30.8 | | | 8.5 | | | 11.3 | |
| LOS | | C | | | C | | | A | | | B | |
| Approach Delay | | 34.4 | | | 30.8 | | | 8.5 | | | 11.3 | |
| Approach LOS | | C | | | C | | | A | | | B | |

Intersection Summary
Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 19 (17%), Referenced to phase 2:NETL and 6:SWTL, Start of Yellow
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.50
Intersection Signal Delay: 21.4 Intersection LOS: C
Intersection Capacity Utilization 40.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 27: Genesee St & Hopper St/Court Street

## Queues
### 27: Genesee St & Hopper St/Court Street

02/20/2019

| Lane Group | SET | NWT | NET | SWT |
|---|---|---|---|---|
| Lane Group Flow (vph) | 439 | 225 | 361 | 310 |
| v/c Ratio | 0.50 | 0.25 | 0.17 | 0.15 |
| Control Delay | 34.4 | 30.8 | 8.5 | 11.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 34.4 | 30.8 | 8.5 | 11.3 |
| Queue Length 50th (ft) | 130 | 61 | 50 | 51 |
| Queue Length 95th (ft) | 180 | 95 | 70 | 74 |
| Internal Link Dist (ft) | 151 | 144 | 360 | 403 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 881 | 883 | 2077 | 2076 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.50 | 0.25 | 0.17 | 0.15 |

Intersection Summary



## Lanes, Volumes, Timings
### 101: State Street & Proposed Parking Lot

02/20/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 4 | 0 | 21 | 30 | 0 | 21 | 56 | 230 | 78 | 135 | 357 | 20 |
| Future Volume (vph) | 4 | 0 | 21 | 30 | 0 | 21 | 56 | 230 | 78 | 135 | 357 | 20 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Frt | | 0.885 | | | 0.945 | | | 0.968 | | | 0.994 | |
| Flt Protected | | 0.993 | | | 0.971 | | | 0.992 | | | 0.987 | |
| Satd. Flow (prot) | 0 | 1637 | 0 | 0 | 1709 | 0 | 0 | 3399 | 0 | 0 | 3472 | 0 |
| Flt Permitted | | 0.993 | | | 0.971 | | | 0.992 | | | 0.987 | |
| Satd. Flow (perm) | 0 | 1637 | 0 | 0 | 1709 | 0 | 0 | 3399 | 0 | 0 | 3472 | 0 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 251 | | | 229 | | | 138 | | | 148 | |
| Travel Time (s) | | 5.7 | | | 5.2 | | | 3.1 | | | 3.4 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 4 | 0 | 23 | 33 | 0 | 23 | 61 | 250 | 85 | 147 | 388 | 22 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 27 | 0 | 0 | 56 | 0 | 0 | 396 | 0 | 0 | 557 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 43.2% ICU Level of Service A
Analysis Period (min) 15

HCM 2010 TWSC
101: State Street & Proposed Parking Lot 02/20/2019

| Intersection | |
|---|---|
| Int Delay, s/veh | 3.3 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 4 | 0 | 21 | 30 | 0 | 21 | 56 | 230 | 78 | 135 | 357 | 20 |
| Future Vol, veh/h | 4 | 0 | 21 | 30 | 0 | 21 | 56 | 230 | 78 | 135 | 357 | 20 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 4 | 0 | 23 | 33 | 0 | 23 | 61 | 250 | 85 | 147 | 388 | 22 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 940 | 1150 | 205 | 903 | 1119 | 168 | 410 | 0 | 0 | 335 | 0 | 0 |
| Stage 1 | 693 | 693 | - | 415 | 415 | - | - | - | - | - | - | - |
| Stage 2 | 247 | 457 | - | 488 | 704 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 218 | 197 | 802 | 232 | 205 | 847 | 1145 | - | - | 1221 | - | - |
| Stage 1 | 400 | 443 | - | 585 | 591 | - | - | - | - | - | - | - |
| Stage 2 | 735 | 566 | - | 530 | 438 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 177 | 155 | 802 | 189 | 162 | 847 | 1145 | - | - | 1221 | - | - |
| Mov Cap-2 Maneuver | 177 | 155 | - | 189 | 162 | - | - | - | - | - | - | - |
| Stage 1 | 374 | 374 | - | 546 | 552 | - | - | - | - | - | - | - |
| Stage 2 | 668 | 529 | - | 435 | 370 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 12.4 | 21.1 | 1.4 | 2.5 |
| HCM LOS | B | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1145 | - | - | 512 | 278 | 1221 | - | - |
| HCM Lane V/C Ratio | 0.053 | - | - | 0.053 | 0.199 | 0.12 | - | - |
| HCM Control Delay (s) | 8.3 | 0.2 | - | 12.4 | 21.1 | 8.4 | 0.4 | - |
| HCM Lane LOS | A | A | - | B | C | A | A | - |
| HCM 95th %tile Q(veh) | 0.2 | - | - | 0.2 | 0.7 | 0.4 | - | - |



Lanes, Volumes, Timings
102: Columbia Street & Proposed Parking Lot 02/20/2019

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 1 | 173 | 2 | 29 | 8 | 1 |
| Future Volume (vph) | 1 | 173 | 2 | 29 | 8 | 1 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 |
| Frt | | | 0.859 | | 0.986 | |
| Flt Protected | | | | | 0.957 | |
| Satd. Flow (prot) | 0 | 1863 | 3040 | 0 | 1758 | 0 |
| Flt Permitted | | | | | 0.957 | |
| Satd. Flow (perm) | 0 | 1863 | 3040 | 0 | 1758 | 0 |
| Link Speed (mph) | | 30 | 30 | | 30 | |
| Link Distance (ft) | | 194 | 228 | | 225 | |
| Travel Time (s) | | 4.4 | 5.2 | | 5.1 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 1 | 188 | 2 | 32 | 9 | 1 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 189 | 34 | 0 | 10 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 0 | 0 | | 12 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Sign Control | | Free | Free | | Stop | |

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 19.9% ICU Level of Service A

Analysis Period (min) 15

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.4 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 1 | 173 | 2 | 29 | 8 | 1 |
| Future Vol, veh/h | 1 | 173 | 2 | 29 | 8 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 1 | 188 | 2 | 32 | 9 | 1 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 34 | 0 | - | 0 | 208 | 17 |
| Stage 1 | - | - | - | - | 18 | - |
| Stage 2 | - | - | - | - | 190 | - |
| Critical Hdwy | 4.13 | - | - | - | 6.63 | 6.93 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.83 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.43 | - |
| Follow-up Hdwy | 2.219 | - | - | - | 3.519 | 3.319 |
| Pot Cap-1 Maneuver | 1577 | - | - | - | 771 | 1058 |
| Stage 1 | - | - | - | - | 1002 | - |
| Stage 2 | - | - | - | - | 842 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1577 | - | - | - | 770 | 1058 |
| Mov Cap-2 Maneuver | - | - | - | - | 770 | - |
| Stage 1 | - | - | - | - | 1001 | - |
| Stage 2 | - | - | - | - | 842 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 9.6 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1577 | - | - | - | 794 |
| HCM Lane V/C Ratio | 0.001 | - | - | - | 0.012 |
| HCM Control Delay (s) | 7.3 | 0 | - | - | 9.6 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0 |





| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 13 | 10 | 411 | 37 | 309 | 28 |
| Future Volume (vph) | 13 | 10 | 411 | 37 | 309 | 28 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 |
| Frt | 0.941 | | 0.988 | | | |
| Flt Protected | 0.973 | | | | | 0.956 |
| Satd. Flow (prot) | 1706 | 0 | 3497 | 0 | 0 | 1781 |
| Flt Permitted | 0.973 | | | | | 0.956 |
| Satd. Flow (perm) | 1706 | 0 | 3497 | 0 | 0 | 1781 |
| Link Speed (mph) | 30 | | 30 | | | 30 |
| Link Distance (ft) | 224 | | 564 | | | 314 |
| Travel Time (s) | 5.1 | | 12.8 | | | 7.1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 14 | 11 | 447 | 40 | 336 | 30 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 25 | 0 | 487 | 0 | 0 | 366 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 12 | | | 12 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Sign Control | Stop | | Free | | | Free |

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 44.5% ICU Level of Service A

Analysis Period (min) 15

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.4 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 13 | 10 | 411 | 37 | 309 | 28 |
| Future Vol, veh/h | 13 | 10 | 411 | 37 | 309 | 28 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 14 | 11 | 447 | 40 | 336 | 30 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1169 | 244 | 0 | 0 | 487 | 0 |
| Stage 1 | 467 | - | - | - | - | - |
| Stage 2 | 702 | - | - | - | - | - |
| Critical Hdwy | 6.63 | 6.93 | - | - | 4.13 | - |
| Critical Hdwy Stg 1 | 5.83 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.43 | - | - | - | - | - |
| Follow-up Hdwy | 3.519 | 3.319 | - | - | 2.219 | - |
| Pot Cap-1 Maneuver | 199 | 757 | - | - | 1074 | - |
| Stage 1 | 598 | - | - | - | - | - |
| Stage 2 | 490 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 136 | 757 | - | - | 1074 | - |
| Mov Cap-2 Maneuver | 136 | - | - | - | - | - |
| Stage 1 | 408 | - | - | - | - | - |
| Stage 2 | 490 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 24.3 | 0 | 9 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | SBL | SBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 211 | 1074 | - |
| HCM Lane V/C Ratio | - | - | 0.118 | 0.313 | - |
| HCM Control Delay (s) | - | - | 24.3 | 9.9 | 0 |
| HCM Lane LOS | - | - | C | A | A |
| HCM 95th %tile Q(veh) | - | - | 0.4 | 1.3 | - |





| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 51 | 41 | 147 | 0 | 0 | 48 |
| Future Volume (vph) | 51 | 41 | 147 | 0 | 0 | 48 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.939 | | | | 0.865 | |
| Flt Protected | 0.973 | | | 0.950 | | |
| Satd. Flow (prot) | 1702 | 0 | 0 | 1770 | 1611 | 0 |
| Flt Permitted | 0.973 | | | 0.950 | | |
| Satd. Flow (perm) | 1702 | 0 | 0 | 1770 | 1611 | 0 |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 138 | | | 184 | 262 | |
| Travel Time (s) | 3.1 | | | 4.2 | 6.0 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 55 | 45 | 160 | 0 | 0 | 52 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 100 | 0 | 0 | 160 | 52 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 12 | | | 0 | 0 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Sign Control | Stop | | | Free | Free | |

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 26.8% ICU Level of Service A
Analysis Period (min) 15

HCM 2010 TWSC
104: Cornelia Street & Proposed Parking Lot 02/20/2019

| Intersection | |
|---|---|
| Int Delay, s/veh | 7.3 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 51 | 41 | 147 | 0 | 0 | 48 |
| Future Vol, veh/h | 51 | 41 | 147 | 0 | 0 | 48 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 55 | 45 | 160 | 0 | 0 | 52 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 346 | 26 | 52 | 0 | - | 0 |
| Stage 1 | 26 | - | - | - | - | - |
| Stage 2 | 320 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 651 | 1050 | 1554 | - | - | - |
| Stage 1 | 997 | - | - | - | - | - |
| Stage 2 | 736 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 584 | 1050 | 1554 | - | - | - |
| Mov Cap-2 Maneuver | 584 | - | - | - | - | - |
| Stage 1 | 894 | - | - | - | - | - |
| Stage 2 | 736 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 10.7 | 7.6 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1554 | - | 728 | - | - |
| HCM Lane V/C Ratio | 0.103 | - | 0.137 | - | - |
| HCM Control Delay (s) | 7.6 | 0 | 10.7 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0.3 | - | 0.5 | - | - |



Lanes, Volumes, Timings
105: Cornelia Street & Proposed Parking Lot 02/20/2019

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 12 | 2 | 0 | 74 | 162 | 32 |
| Future Volume (vph) | 12 | 2 | 0 | 74 | 162 | 32 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 |
| Frt | 0.982 | | | | 0.975 | |
| Flt Protected | 0.958 | | | | | |
| Satd. Flow (prot) | 1752 | 0 | 0 | 1863 | 3451 | 0 |
| Flt Permitted | 0.958 | | | | | |
| Satd. Flow (perm) | 1752 | 0 | 0 | 1863 | 3451 | 0 |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 238 | | | 633 | 260 | |
| Travel Time (s) | 5.4 | | | 14.4 | 5.9 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 13 | 2 | 0 | 80 | 176 | 35 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 15 | 0 | 0 | 80 | 211 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 12 | | | 0 | 0 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Sign Control | Stop | | | Free | Free | |

Intersection Summary
Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 15.5% ICU Level of Service A
Analysis Period (min) 15

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.5 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 12 | 2 | 0 | 74 | 162 | 32 |
| Future Vol, veh/h | 12 | 2 | 0 | 74 | 162 | 32 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 13 | 2 | 0 | 80 | 176 | 35 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 274 | 106 | 211 | 0 | - | 0 |
| Stage 1 | 194 | - | - | - | - | - |
| Stage 2 | 80 | - | - | - | - | - |
| Critical Hdwy | 6.63 | 6.93 | 4.13 | - | - | - |
| Critical Hdwy Stg 1 | 5.83 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.43 | - | - | - | - | - |
| Follow-up Hdwy | 3.519 | 3.319 | 2.219 | - | - | - |
| Pot Cap-1 Maneuver | 704 | 928 | 1358 | - | - | - |
| Stage 1 | 820 | - | - | - | - | - |
| Stage 2 | 943 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 704 | 928 | 1358 | - | - | - |
| Mov Cap-2 Maneuver | 704 | - | - | - | - | - |
| Stage 1 | 820 | - | - | - | - | - |
| Stage 2 | 943 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 10 | 0 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1358 | - | 729 | - | - |
| HCM Lane V/C Ratio | - | - | 0.021 | - | - |
| HCM Control Delay (s) | 0 | - | 10 | - | - |
| HCM Lane LOS | A | - | B | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.1 | - | - |

# Future Build PM Synchro Reports

| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR | Ø1 | Ø2 | Ø8 |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 345 | 0 | 0 | 627 | 33 | 235 | | | |
| Future Volume (vph) | 345 | 0 | 0 | 627 | 33 | 235 | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | | | |
| Lane Util. Factor | 0.95 | 1.00 | 1.00 | 0.91 | 1.00 | 0.88 | | | |
| Frt | | | | | | 0.850 | | | |
| Flt Protected | | | | | 0.950 | | | | |
| Satd. Flow (prot) | 3539 | 0 | 0 | 5085 | 1770 | 2787 | | | |
| Flt Permitted | | | | | 0.950 | | | | |
| Satd. Flow (perm) | 3539 | 0 | 0 | 5085 | 1770 | 2787 | | | |
| Right Turn on Red | | Yes | | | | Yes | | | |
| Satd. Flow (RTOR) | | | | | | 255 | | | |
| Link Speed (mph) | 30 | | | 30 | 30 | | | | |
| Link Distance (ft) | 199 | | | 382 | 542 | | | | |
| Travel Time (s) | 4.5 | | | 8.7 | 12.3 | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | | |
| Adj. Flow (vph) | 375 | 0 | 0 | 682 | 36 | 255 | | | |
| Shared Lane Traffic (%) | | | | | | | | | |
| Lane Group Flow (vph) | 375 | 0 | 0 | 682 | 36 | 255 | | | |
| Enter Blocked Intersection | No | No | No | No | No | No | | | |
| Lane Alignment | Left | Right | Left | Left | Left | Right | | | |
| Median Width(ft) | 12 | | | 12 | 12 | | | | |
| Link Offset(ft) | 0 | | | 0 | 0 | | | | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | | | | |
| Two way Left Turn Lane | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Turning Speed (mph) | | 9 | 15 | | 15 | 9 | | | |
| Number of Detectors | 2 | | | 2 | 1 | 1 | | | |
| Detector Template | Thru | | | Thru | Left | Right | | | |
| Leading Detector (ft) | 100 | | | 100 | 20 | 20 | | | |
| Trailing Detector (ft) | 0 | | | 0 | 0 | 0 | | | |
| Detector 1 Position(ft) | 0 | | | 0 | 0 | 0 | | | |
| Detector 1 Size(ft) | 6 | | | 6 | 20 | 20 | | | |
| Detector 1 Type | Cl+Ex | | | Cl+Ex | Cl+Ex | Cl+Ex | | | |
| Detector 1 Channel | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | | | 0.0 | 0.0 | 0.0 | | | |
| Detector 1 Queue (s) | 0.0 | | | 0.0 | 0.0 | 0.0 | | | |
| Detector 1 Delay (s) | 0.0 | | | 0.0 | 0.0 | 0.0 | | | |
| Detector 2 Position(ft) | 94 | | | 94 | | | | | |
| Detector 2 Size(ft) | 6 | | | 6 | | | | | |
| Detector 2 Type | Cl+Ex | | | Cl+Ex | | | | | |
| Detector 2 Channel | | | | | | | | | |
| Detector 2 Extend (s) | 0.0 | | | 0.0 | | | | | |
| Turn Type | NA | | | NA | Prot | Prot | | | |
| Protected Phases | 2 8 | | | 6 | 9 | 9 | 1 | 2 | 8 |
| Permitted Phases | | | | | | | | | |
| Detector Phase | 2 8 | | | 6 | 9 | 9 | | | |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | | | | 10.0 | 4.0 | 4.0 | 4.0 | 10.0 | 4.0 |

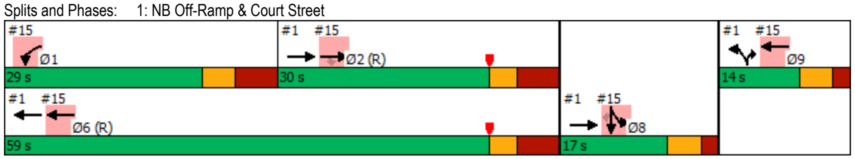




| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR | Ø1 | Ø2 | Ø8 |
|---|---|---|---|---|---|---|---|---|---|
| Minimum Split (s) | | | | 23.5 | 21.5 | 21.5 | 24.0 | 17.5 | 9.5 |
| Total Split (s) | | | | 59.0 | 14.0 | 14.0 | 29.0 | 30.0 | 17.0 |
| Total Split (%) | | | | 65.6% | 15.6% | 15.6% | 32% | 33% | 19% |
| Maximum Green (s) | | | | 51.5 | 8.5 | 8.5 | 21.0 | 22.5 | 11.5 |
| Yellow Time (s) | | | | 3.0 | 3.5 | 3.5 | 3.5 | 3.0 | 3.5 |
| All-Red Time (s) | | | | 4.5 | 2.0 | 2.0 | 4.5 | 4.5 | 2.0 |
| Lost Time Adjust (s) | | | | 0.0 | 0.0 | 0.0 | | | |
| Total Lost Time (s) | | | | 7.5 | 5.5 | 5.5 | | | |
| Lead/Lag | | | | | | | Lead | Lag | |
| Lead-Lag Optimize? | | | | | | | Yes | Yes | |
| Vehicle Extension (s) | | | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | | | | C-Max | None | None | None | C-Max | None |
| Walk Time (s) | | | | 5.0 | | | | 5.0 | 5.0 |
| Flash Dont Walk (s) | | | | 11.0 | | | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | | | 0 | | | | 0 | 0 |
| Act Effct Green (s) | 43.5 | | | 52.3 | 8.2 | 8.2 | | | |
| Actuated g/C Ratio | 0.48 | | | 0.58 | 0.09 | 0.09 | | | |
| v/c Ratio | 0.22 | | | 0.23 | 0.23 | 0.53 | | | |
| Control Delay | 11.0 | | | 7.8 | 41.5 | 9.6 | | | |
| Queue Delay | 0.5 | | | 0.0 | 0.7 | 0.0 | | | |
| Total Delay | 11.5 | | | 7.8 | 42.2 | 9.6 | | | |
| LOS | B | | | A | D | A | | | |
| Approach Delay | 11.5 | | | 7.8 | 13.6 | | | | |
| Approach LOS | B | | | A | B | | | | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 90 | |
| Actuated Cycle Length: 90 | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.71 | |
| Intersection Signal Delay: 10.1 | Intersection LOS: B |
| Intersection Capacity Utilization 50.3% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 1: NB Off-Ramp & Court Street



| Lane Group | EBT | WBT | NBL | NBR |
|---|---|---|---|---|
| Lane Group Flow (vph) | 375 | 682 | 36 | 255 |
| v/c Ratio | 0.22 | 0.23 | 0.23 | 0.53 |
| Control Delay | 11.0 | 7.8 | 41.5 | 9.6 |
| Queue Delay | 0.5 | 0.0 | 0.7 | 0.0 |
| Total Delay | 11.5 | 7.8 | 42.2 | 9.6 |
| Queue Length 50th (ft) | 23 | 60 | 19 | 0 |
| Queue Length 95th (ft) | 54 | 70 | 49 | 38 |
| Internal Link Dist (ft) | 119 | 302 | 462 | |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 1730 | 2954 | 167 | 494 |
| Starvation Cap Reductn | 926 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 200 | 37 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.47 | 0.25 | 0.28 | 0.52 |

Intersection Summary



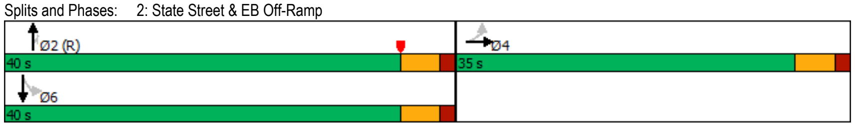


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 414 | 17 | 214 | 0 | 0 | 0 | 0 | 530 | 130 | 159 | 45 | 0 |
| Future Volume (vph) | 414 | 17 | 214 | 0 | 0 | 0 | 0 | 530 | 130 | 159 | 45 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 8 | 8 | 8 | 12 | 12 | 12 | 12 | 12 | 12 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.955 | | | | | | | 0.850 | | | |
| Flt Protected | | 0.969 | | | | | | | | | 0.962 | |
| Satd. Flow (prot) | 0 | 1736 | 0 | 0 | 0 | 0 | 0 | 1881 | 1583 | 0 | 1759 | 0 |
| Flt Permitted | | 0.969 | | | | | | | | | 0.284 | |
| Satd. Flow (perm) | 0 | 1736 | 0 | 0 | 0 | 0 | 0 | 1881 | 1583 | 0 | 519 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 40 | | | | | | | 141 | | | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 161 | | | 214 | | | 148 | | | 273 | |
| Travel Time (s) | | 3.7 | | | 4.9 | | | 3.4 | | | 6.2 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 2% | 0% | 0% | 0% | 0% | 0% | 0% | 1% | 2% | 5% | 0% | 0% |
| Adj. Flow (vph) | 450 | 18 | 233 | 0 | 0 | 0 | 0 | 576 | 141 | 173 | 49 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 701 | 0 | 0 | 0 | 0 | 0 | 576 | 141 | 0 | 222 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.20 | 1.20 | 1.20 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | | | | | 2 | 1 | 1 | 2 | |
| Detector Template | Left | Thru | | | | | | Thru | Right | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | | | | | 100 | 20 | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | | | | | 0 | 0 | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | | | | | 0 | 0 | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | | | | | 6 | 20 | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | | | | | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | | | | | NA | Perm | Perm | NA | |
| Protected Phases | | 4 | | | | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | | | | | | 2 | 6 | | |
| Detector Phase | 4 | 4 | | | | | | 2 | 2 | 6 | 6 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | | | | | | 4.0 | 4.0 | 4.0 | 4.0 | |
| Minimum Split (s) | 9.0 | 9.0 | | | | | | 9.0 | 9.0 | 9.0 | 9.0 | |
| Total Split (s) | 35.0 | 35.0 | | | | | | 40.0 | 40.0 | 40.0 | 40.0 | |
| Total Split (%) | 46.7% | 46.7% | | | | | | 53.3% | 53.3% | 53.3% | 53.3% | |
| Maximum Green (s) | 30.0 | 30.0 | | | | | | 35.0 | 35.0 | 35.0 | 35.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | | | | | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.5 | 1.5 | | | | | | 1.5 | 1.5 | 1.5 | 1.5 | |
| Lost Time Adjust (s) | | 0.0 | | | | | | 0.0 | 0.0 | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | | | | 5.0 | 5.0 | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | | | | | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | None | | | | | | C-Max | C-Max | Max | Max | |
| Walk Time (s) | 5.0 | 5.0 | | | | | | | | | | |
| Flash Dont Walk (s) | 15.0 | 15.0 | | | | | | | | | | |
| Pedestrian Calls (#/hr) | 0 | 0 | | | | | | | | | | |
| Act Effct Green (s) | | 30.0 | | | | | | 35.0 | 35.0 | | 35.0 | |
| Actuated g/C Ratio | | 0.40 | | | | | | 0.47 | 0.47 | | 0.47 | |
| v/c Ratio | | 0.98 | | | | | | 0.66 | 0.17 | | 0.92 | |
| Control Delay | | 51.7 | | | | | | 16.2 | 2.1 | | 63.6 | |
| Queue Delay | | 0.0 | | | | | | 1.6 | 0.0 | | 0.0 | |
| Total Delay | | 51.7 | | | | | | 17.8 | 2.1 | | 63.6 | |
| LOS | | D | | | | | | B | A | | E | |
| Approach Delay | | 51.7 | | | | | | 14.7 | | | 63.6 | |
| Approach LOS | | D | | | | | | B | | | E | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 75 | |
| Actuated Cycle Length: 75 | |
| Offset: 74.5 (99%), Referenced to phase 2:NBT, Start of Yellow | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.98 | |
| Intersection Signal Delay: 37.1 | Intersection LOS: D |
| Intersection Capacity Utilization 88.5% | ICU Level of Service E |
| Analysis Period (min) 15 | |

Splits and Phases: 2: State Street & EB Off-Ramp








| Lane Group | EBT | NBT | NBR | SBT |
|---|---|---|---|---|
| Lane Group Flow (vph) | 701 | 576 | 141 | 222 |
| v/c Ratio | 0.98 | 0.66 | 0.17 | 0.92 |
| Control Delay | 51.7 | 16.2 | 2.1 | 63.6 |
| Queue Delay | 0.0 | 1.6 | 0.0 | 0.0 |
| Total Delay | 51.7 | 17.8 | 2.1 | 63.6 |
| Queue Length 50th (ft) | 298 | 166 | 8 | 92 |
| Queue Length 95th (ft) | #529 | 292 | 12 | #229 |
| Internal Link Dist (ft) | 81 | 68 | | 193 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 718 | 877 | 813 | 242 |
| Starvation Cap Reductn | 0 | 150 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.98 | 0.79 | 0.17 | 0.92 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 61 | 0 | 20 | 3 | 1 | 2 | 95 | 550 | 1 | 5 | 284 | 17 |
| Future Volume (vph) | 61 | 0 | 20 | 3 | 1 | 2 | 95 | 550 | 1 | 5 | 284 | 17 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 123 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.967 | | | 0.955 | | | | | | 0.992 | |
| Flt Protected | | 0.963 | | | 0.976 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1769 | 0 | 0 | 1736 | 0 | 1805 | 1881 | 0 | 1770 | 1885 | 0 |
| Flt Permitted | | 0.775 | | | 0.882 | | 0.557 | | | 0.398 | | |
| Satd. Flow (perm) | 0 | 1424 | 0 | 0 | 1569 | 0 | 1058 | 1881 | 0 | 741 | 1885 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 29 | | | 2 | | | | | | 5 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 187 | | | 199 | | | 329 | | | 151 | |
| Travel Time (s) | | 4.3 | | | 4.5 | | | 7.5 | | | 3.4 | |
| Peak Hour Factor | 0.89 | 0.92 | 0.89 | 0.92 | 0.92 | 0.92 | 0.89 | 0.89 | 0.92 | 0.92 | 0.89 | 0.89 |
| Heavy Vehicles (%) | 0% | 2% | 0% | 2% | 2% | 2% | 0% | 1% | 2% | 2% | 0% | 0% |
| Adj. Flow (vph) | 69 | 0 | 22 | 3 | 1 | 2 | 107 | 618 | 1 | 5 | 319 | 19 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 91 | 0 | 0 | 6 | 0 | 107 | 619 | 0 | 5 | 338 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 4 | | | 2 | | | 2 | |



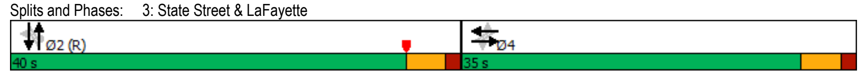


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Permitted Phases | 4 | | | 4 | | | 2 | | | 2 | | |
| Detector Phase | 4 | 4 | | 4 | 4 | | 2 | 2 | | 2 | 2 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Minimum Split (s) | 27.0 | 27.0 | | 27.0 | 27.0 | | 27.0 | 27.0 | | 27.0 | 27.0 | |
| Total Split (s) | 35.0 | 35.0 | | 35.0 | 35.0 | | 40.0 | 40.0 | | 40.0 | 40.0 | |
| Total Split (%) | 46.7% | 46.7% | | 46.7% | 46.7% | | 53.3% | 53.3% | | 53.3% | 53.3% | |
| Maximum Green (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 35.0 | 35.0 | | 35.0 | 35.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | None | None | | None | None | | C-Max | C-Max | | C-Max | C-Max | |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 15.0 | 15.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 8.8 | | | 8.8 | | 59.3 | 59.3 | | 59.3 | 59.3 | |
| Actuated g/C Ratio | | 0.12 | | | 0.12 | | 0.79 | 0.79 | | 0.79 | 0.79 | |
| v/c Ratio | | 0.47 | | | 0.03 | | 0.13 | 0.42 | | 0.01 | 0.23 | |
| Control Delay | | 29.9 | | | 24.0 | | 1.9 | 2.4 | | 2.8 | 3.0 | |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.6 | | 0.0 | 0.8 | |
| Total Delay | | 29.9 | | | 24.0 | | 1.9 | 3.0 | | 2.8 | 3.9 | |
| LOS | | C | | | C | | A | A | | A | A | |
| Approach Delay | | 29.9 | | | 24.0 | | | 2.8 | | | 3.8 | |
| Approach LOS | | C | | | C | | | A | | | A | |

**Intersection Summary**

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.47
Intersection Signal Delay: 5.3 Intersection LOS: A
Intersection Capacity Utilization 51.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 3: State Street & LaFayette



| Lane Group | EBT | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 91 | 6 | 107 | 619 | 5 | 338 |
| v/c Ratio | 0.47 | 0.03 | 0.13 | 0.42 | 0.01 | 0.23 |
| Control Delay | 29.9 | 24.0 | 1.9 | 2.4 | 2.8 | 3.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 | 0.8 |
| Total Delay | 29.9 | 24.0 | 1.9 | 3.0 | 2.8 | 3.9 |
| Queue Length 50th (ft) | 27 | 2 | 5 | 32 | 0 | 25 |
| Queue Length 95th (ft) | 66 | 12 | m10 | m68 | m1 | m64 |
| Internal Link Dist (ft) | 107 | 119 | | 249 | | 71 |
| Turn Bay Length (ft) | | | 123 | | | |
| Base Capacity (vph) | 587 | 628 | 836 | 1487 | 586 | 1491 |
| Starvation Cap Reductn | 0 | 0 | 0 | 474 | 0 | 848 |
| Spillback Cap Reductn | 8 | 0 | 0 | 64 | 0 | 29 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.16 | 0.01 | 0.13 | 0.61 | 0.01 | 0.53 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



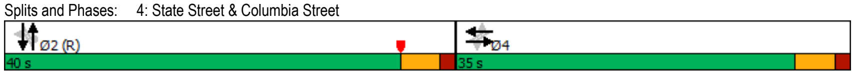


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 72 | 151 | 55 | 94 | 180 | 237 | 142 | 342 | 66 | 58 | 273 | 42 |
| Future Volume (vph) | 72 | 151 | 55 | 94 | 180 | 237 | 142 | 342 | 66 | 58 | 273 | 42 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 0 | | 0 | 114 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.973 | | | 0.937 | | | 0.976 | | | 0.980 | |
| Flt Protected | | 0.987 | | | 0.991 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1590 | 0 | 0 | 1550 | 0 | 1770 | 1818 | 0 | 1805 | 1846 | 0 |
| Flt Permitted | | 0.701 | | | 0.856 | | 0.454 | | | 0.350 | | |
| Satd. Flow (perm) | 0 | 1130 | 0 | 0 | 1339 | 0 | 846 | 1818 | 0 | 665 | 1846 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 20 | | | 69 | | | 17 | | | 14 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 310 | | | 708 | | | 317 | | | 329 | |
| Travel Time (s) | | 7.0 | | | 16.1 | | | 7.2 | | | 7.5 | |
| Peak Hour Factor | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 |
| Heavy Vehicles (%) | 4% | 3% | 3% | 0% | 7% | 0% | 2% | 2% | 2% | 0% | 1% | 0% |
| Parking (#/hr) | | 0 | | | 0 | | | | | | | |
| Adj. Flow (vph) | 86 | 180 | 65 | 112 | 214 | 282 | 169 | 407 | 79 | 69 | 325 | 50 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 331 | 0 | 0 | 608 | 0 | 169 | 486 | 0 | 69 | 375 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.14 | 1.00 | 1.00 | 1.14 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Protected Phases | | 4 | | | 4 | | | 2 | | | 2 | |
| Permitted Phases | 4 | | | 4 | | | 2 | | | 2 | | |
| Detector Phase | 4 | 4 | | 4 | 4 | | 2 | 2 | | 2 | 2 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Minimum Split (s) | 9.0 | 9.0 | | 9.0 | 9.0 | | 9.0 | 9.0 | | 9.0 | 9.0 | |
| Total Split (s) | 35.0 | 35.0 | | 35.0 | 35.0 | | 40.0 | 40.0 | | 40.0 | 40.0 | |
| Total Split (%) | 46.7% | 46.7% | | 46.7% | 46.7% | | 53.3% | 53.3% | | 53.3% | 53.3% | |
| Maximum Green (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 35.0 | 35.0 | | 35.0 | 35.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | None | None | | None | None | | C-Max | C-Max | | C-Max | C-Max | |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 15.0 | 15.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 30.0 | | | 30.0 | | 35.0 | 35.0 | | 35.0 | 35.0 | |
| Actuated g/C Ratio | | 0.40 | | | 0.40 | | 0.47 | 0.47 | | 0.47 | 0.47 | |
| v/c Ratio | | 0.71 | | | 1.05 | | 0.43 | 0.57 | | 0.22 | 0.43 | |
| Control Delay | | 28.3 | | | 75.4 | | 17.6 | 17.2 | | 13.8 | 15.0 | |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.8 | |
| Total Delay | | 28.3 | | | 75.4 | | 17.6 | 17.2 | | 13.8 | 15.8 | |
| LOS | | C | | | E | | B | B | | B | B | |
| Approach Delay | | 28.3 | | | 75.4 | | | 17.3 | | | 15.5 | |
| Approach LOS | | C | | | E | | | B | | | B | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 75 | |
| Actuated Cycle Length: 75 | |
| Offset: 5 (7%), Referenced to phase 2:NBSB and 6:, Start of Yellow | |
| Natural Cycle: 50 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 1.05 | |
| Intersection Signal Delay: 36.0 | Intersection LOS: D |
| Intersection Capacity Utilization 73.1% | ICU Level of Service D |
| Analysis Period (min) 15 | |

Splits and Phases: 4: State Street & Columbia Street








| Lane Group | EBT | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 331 | 608 | 169 | 486 | 69 | 375 |
| v/c Ratio | 0.71 | 1.05 | 0.43 | 0.57 | 0.22 | 0.43 |
| Control Delay | 28.3 | 75.4 | 17.6 | 17.2 | 13.8 | 15.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 |
| Total Delay | 28.3 | 75.4 | 17.6 | 17.2 | 13.8 | 15.8 |
| Queue Length 50th (ft) | 118 | ~295 | 50 | 150 | 23 | 136 |
| Queue Length 95th (ft) | 194 | #436 | 92 | 214 | 53 | 194 |
| Internal Link Dist (ft) | 230 | 628 | | 237 | | 249 |
| Turn Bay Length (ft) | | | | | 114 | |
| Base Capacity (vph) | 464 | 577 | 394 | 857 | 310 | 868 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 234 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.71 | 1.05 | 0.43 | 0.57 | 0.22 | 0.59 |

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | ↰ | ↑↱ | | ↰ | ↑↱ | | ↰ | ↱ | | ↰ | ↱ | |
| Traffic Volume (vph) | 170 | 335 | 142 | 52 | 412 | 86 | 77 | 175 | 28 | 59 | 238 | 125 |
| Future Volume (vph) | 170 | 335 | 142 | 52 | 412 | 86 | 77 | 175 | 28 | 59 | 238 | 125 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 153 | | 0 | 350 | | 0 | 165 | | 0 | 167 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.955 | | | 0.974 | | | 0.979 | | | 0.948 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 3360 | 0 | 1805 | 3487 | 0 | 1805 | 1832 | 0 | 1770 | 1789 | 0 |
| Flt Permitted | 0.339 | | | 0.455 | | | 0.310 | | | 0.544 | | |
| Satd. Flow (perm) | 631 | 3360 | 0 | 864 | 3487 | 0 | 589 | 1832 | 0 | 1013 | 1789 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 87 | | | 28 | | | 10 | | | 32 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 382 | | | 720 | | | 284 | | | 626 | |
| Travel Time (s) | | 8.7 | | | 16.4 | | | 6.5 | | | 14.2 | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 2% | 2% | 4% | 0% | 1% | 0% | 0% | 1% | 5% | 2% | 1% | 0% |
| Adj. Flow (vph) | 189 | 372 | 158 | 58 | 458 | 96 | 86 | 194 | 31 | 66 | 264 | 139 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 189 | 530 | 0 | 58 | 554 | 0 | 86 | 225 | 0 | 66 | 403 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | pm+pt | NA | | pm+pt | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |



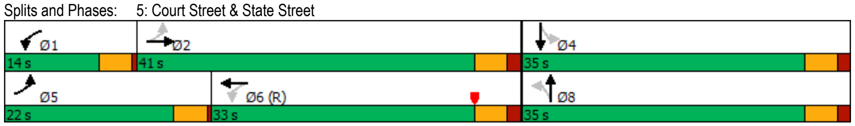


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Permitted Phases | 2 | | | 6 | | | 8 | | | 4 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 8 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 6.0 | | 4.0 | 10.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 8.0 | 23.0 | | 8.0 | 23.0 | | 30.0 | 30.0 | | 30.0 | 30.0 | |
| Total Split (s) | 22.0 | 41.0 | | 14.0 | 33.0 | | 35.0 | 35.0 | | 35.0 | 35.0 | |
| Total Split (%) | 24.4% | 45.6% | | 15.6% | 36.7% | | 38.9% | 38.9% | | 38.9% | 38.9% | |
| Maximum Green (s) | 18.0 | 36.0 | | 10.0 | 28.0 | | 30.0 | 30.0 | | 30.0 | 30.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 0.5 | 1.5 | | 0.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.0 | 5.0 | | 4.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | None | None | | None | C-Max | | Max | Max | | Max | Max | |
| Walk Time (s) | | 4.0 | | | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Flash Dont Walk (s) | | 14.0 | | | 14.0 | | 21.0 | 21.0 | | 21.0 | 21.0 | |
| Pedestrian Calls (#/hr) | | 0 | | | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | 50.6 | 41.1 | | 43.6 | 35.8 | | 30.0 | 30.0 | | 30.0 | 30.0 | |
| Actuated g/C Ratio | 0.56 | 0.46 | | 0.48 | 0.40 | | 0.33 | 0.33 | | 0.33 | 0.33 | |
| v/c Ratio | 0.39 | 0.34 | | 0.12 | 0.39 | | 0.44 | 0.36 | | 0.20 | 0.65 | |
| Control Delay | 12.8 | 13.4 | | 9.8 | 19.8 | | 32.1 | 23.8 | | 23.4 | 29.4 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 12.8 | 13.4 | | 9.8 | 19.8 | | 32.1 | 23.8 | | 23.4 | 29.4 | |
| LOS | B | B | | A | B | | C | C | | C | C | |
| Approach Delay | | 13.3 | | | 18.8 | | | 26.1 | | | 28.5 | |
| Approach LOS | | B | | | B | | | C | | | C | |

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 3 (3%), Referenced to phase 6:WBTL, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.65
Intersection Signal Delay: 20.2 Intersection LOS: C
Intersection Capacity Utilization 64.5% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 5: Court Street & State Street



## Queues
### 5: Court Street & State Street
02/20/2019

| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 189 | 530 | 58 | 554 | 86 | 225 | 66 | 403 |
| v/c Ratio | 0.39 | 0.34 | 0.12 | 0.39 | 0.44 | 0.36 | 0.20 | 0.65 |
| Control Delay | 12.8 | 13.4 | 9.8 | 19.8 | 32.1 | 23.8 | 23.4 | 29.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 12.8 | 13.4 | 9.8 | 19.8 | 32.1 | 23.8 | 23.4 | 29.4 |
| Queue Length 50th (ft) | 51 | 71 | 14 | 109 | 38 | 92 | 27 | 178 |
| Queue Length 95th (ft) | 85 | 97 | 30 | 163 | 85 | 153 | 59 | 279 |
| Internal Link Dist (ft) | | 302 | | 640 | | 204 | | 546 |
| Turn Bay Length (ft) | 153 | | 350 | | 165 | | 167 | |
| Base Capacity (vph) | 585 | 1582 | 553 | 1403 | 196 | 617 | 337 | 617 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.32 | 0.34 | 0.10 | 0.39 | 0.44 | 0.36 | 0.20 | 0.65 |

Intersection Summary



## Lanes, Volumes, Timings
### 6: Cornelia St & 5S
02/20/2019

| Lane Group | EBT | EBR | WBT | WBR | NBL | NBT | NBR | SBT | SBR2 | NER | NER2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 882 | 17 | 1249 | 2 | 192 | 0 | 49 | 3 | 186 | 293 | 2 |
| Future Volume (vph) | 882 | 17 | 1249 | 2 | 192 | 0 | 49 | 3 | 186 | 293 | 2 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | | 0 | | 0 | 0 | | 0 | | | 0 | |
| Storage Lanes | | 0 | | 0 | 0 | | 0 | | | 1 | |
| Taper Length (ft) | | | | | 25 | | | | | | |
| Lane Util. Factor | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.997 | | | | | 0.973 | | 0.867 | | 0.865 | |
| Flt Protected | | | | | | 0.962 | | | | | |
| Satd. Flow (prot) | 3487 | 0 | 3539 | 0 | 0 | 1778 | 0 | 1615 | 0 | 1595 | 0 |
| Flt Permitted | | | | | | 0.511 | | | | | |
| Satd. Flow (perm) | 3487 | 0 | 3539 | 0 | 0 | 945 | 0 | 1615 | 0 | 1595 | 0 |
| Right Turn on Red | | | | Yes | | | No | | Yes | | No |
| Satd. Flow (RTOR) | | | | | | | | 86 | | | |
| Link Speed (mph) | 30 | | 30 | | | 30 | | 30 | | | |
| Link Distance (ft) | 365 | | 699 | | | 218 | | 244 | | | |
| Travel Time (s) | 8.3 | | 15.9 | | | 5.0 | | 5.5 | | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 3% | 14% | 2% | 0% | 0% | 0% | 0% | 0% | 2% | 3% | 14% |
| Adj. Flow (vph) | 980 | 19 | 1388 | 2 | 213 | 0 | 54 | 3 | 207 | 326 | 2 |
| Shared Lane Traffic (%) | | | | | | | | | | | |
| Lane Group Flow (vph) | 999 | 0 | 1390 | 0 | 0 | 267 | 0 | 210 | 0 | 328 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left | Right | Left | Right | Right | Right |
| Median Width(ft) | 12 | | 12 | | | 0 | | 0 | | | |
| Link Offset(ft) | 0 | | 0 | | | 0 | | 0 | | | |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 | | 16 | | | |
| Two way Left Turn Lane | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | | 9 | | 9 | 15 | | 9 | | 9 | 9 | 9 |
| Number of Detectors | 2 | | 2 | | 1 | 2 | | 2 | | 1 | |
| Detector Template | Thru | | Thru | | Left | Thru | | Thru | | Right | |
| Leading Detector (ft) | 100 | | 100 | | 20 | 100 | | 100 | | 20 | |
| Trailing Detector (ft) | 0 | | 0 | | 0 | 0 | | 0 | | 0 | |
| Detector 1 Position(ft) | 0 | | 0 | | 0 | 0 | | 0 | | 0 | |
| Detector 1 Size(ft) | 6 | | 6 | | 20 | 6 | | 6 | | 20 | |
| Detector 1 Type | Cl+Ex | | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | | 0.0 | | 0.0 | 0.0 | | 0.0 | | 0.0 | |
| Detector 1 Queue (s) | 0.0 | | 0.0 | | 0.0 | 0.0 | | 0.0 | | 0.0 | |
| Detector 1 Delay (s) | 0.0 | | 0.0 | | 0.0 | 0.0 | | 0.0 | | 0.0 | |
| Detector 2 Position(ft) | 94 | | 94 | | | 94 | | 94 | | | |
| Detector 2 Size(ft) | 6 | | 6 | | | 6 | | 6 | | | |
| Detector 2 Type | Cl+Ex | | Cl+Ex | | | Cl+Ex | | Cl+Ex | | | |
| Detector 2 Channel | | | | | | | | | | | |
| Detector 2 Extend (s) | 0.0 | | 0.0 | | | 0.0 | | 0.0 | | | |
| Turn Type | NA | | NA | | Perm | NA | | NA | | Prot | |
| Protected Phases | 2 | | 6 | | | 4 | | 8 | | 1 | |

| Lane Group | EBT | EBR | WBT | WBR | NBL | NBT | NBR | SBT | SBR2 | NER | NER2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Permitted Phases | | | | | 4 | | | | | | |
| Detector Phase | 2 | | 6 | | 4 | 4 | | 8 | | 1 | |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 12.0 | | 12.0 | | 6.0 | 6.0 | | 6.0 | | 6.0 | |
| Minimum Split (s) | 17.0 | | 17.0 | | 11.0 | 11.0 | | 11.0 | | 11.0 | |
| Total Split (s) | 51.0 | | 85.0 | | 25.0 | 25.0 | | 25.0 | | 34.0 | |
| Total Split (%) | 46.4% | | 77.3% | | 22.7% | 22.7% | | 22.7% | | 30.9% | |
| Maximum Green (s) | 46.0 | | 80.0 | | 20.0 | 20.0 | | 20.0 | | 29.0 | |
| Yellow Time (s) | 3.5 | | 3.5 | | 3.5 | 3.5 | | 3.5 | | 3.5 | |
| All-Red Time (s) | 1.5 | | 1.5 | | 1.5 | 1.5 | | 1.5 | | 1.5 | |
| Lost Time Adjust (s) | 0.0 | | 0.0 | | | 0.0 | | 0.0 | | 0.0 | |
| Total Lost Time (s) | 5.0 | | 5.0 | | | 5.0 | | 5.0 | | 5.0 | |
| Lead/Lag | Lag | | | | | | | | | Lead | |
| Lead-Lag Optimize? | | | | | | | | | | | |
| Vehicle Extension (s) | 2.0 | | 2.0 | | 2.0 | 2.0 | | 2.0 | | 2.0 | |
| Recall Mode | C-Min | | C-Min | | None | None | | None | | None | |
| Act Effct Green (s) | 40.4 | | 71.0 | | | 29.0 | | 29.0 | | 25.6 | |
| Actuated g/C Ratio | 0.37 | | 0.65 | | | 0.26 | | 0.26 | | 0.23 | |
| v/c Ratio | 0.78 | | 0.61 | | | 1.08 | | 0.43 | | 0.88 | |
| Control Delay | 35.5 | | 9.0 | | | 120.0 | | 24.6 | | 65.7 | |
| Queue Delay | 0.0 | | 0.0 | | | 0.0 | | 0.0 | | 0.0 | |
| Total Delay | 35.5 | | 9.0 | | | 120.0 | | 24.6 | | 65.7 | |
| LOS | D | | A | | | F | | C | | E | |
| Approach Delay | 35.5 | | 9.0 | | | 120.0 | | 24.6 | | | |
| Approach LOS | D | | A | | | F | | C | | | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 110 | |
| Actuated Cycle Length: 110 | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green, Master Intersection | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 1.08 | |
| Intersection Signal Delay: 33.4 | Intersection LOS: C |
| Intersection Capacity Utilization 85.2% | ICU Level of Service E |
| Analysis Period (min) 15 | |

Splits and Phases: 6: Cornelia St & 5S






| Lane Group | EBT | WBT | NBT | SBT | NER |
|---|---|---|---|---|---|
| Lane Group Flow (vph) | 999 | 1390 | 267 | 210 | 328 |
| v/c Ratio | 0.78 | 0.61 | 1.08 | 0.43 | 0.88 |
| Control Delay | 35.5 | 9.0 | 120.0 | 24.6 | 65.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 35.5 | 9.0 | 120.0 | 24.6 | 65.7 |
| Queue Length 50th (ft) | 329 | 76 | ~217 | 71 | 219 |
| Queue Length 95th (ft) | 375 | 221 | #428 | 157 | #350 |
| Internal Link Dist (ft) | 285 | 619 | 138 | 164 | |
| Turn Bay Length (ft) | | | | | |
| Base Capacity (vph) | 1458 | 2573 | 248 | 488 | 420 |
| Starvation Cap Reductn | 0 | 84 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.69 | 0.56 | 1.08 | 0.43 | 0.78 |

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 269 | 29 | 72 | 441 | 54 | 94 |
| Future Volume (vph) | 269 | 29 | 72 | 441 | 54 | 94 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.987 | | | | 0.914 | |
| Flt Protected | | | | 0.993 | 0.982 | |
| Satd. Flow (prot) | 1810 | 0 | 0 | 1785 | 1687 | 0 |
| Flt Permitted | | | | 0.893 | 0.982 | |
| Satd. Flow (perm) | 1810 | 0 | 0 | 1605 | 1687 | 0 |
| Right Turn on Red | | Yes | | | | Yes |
| Satd. Flow (RTOR) | 16 | | | | 124 | |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 708 | | | 616 | 222 | |
| Travel Time (s) | 16.1 | | | 14.0 | 5.0 | |
| Peak Hour Factor | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 |
| Heavy Vehicles (%) | 4% | 0% | 4% | 6% | 3% | 0% |
| Adj. Flow (vph) | 354 | 38 | 95 | 580 | 71 | 124 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 392 | 0 | 0 | 675 | 195 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 0 | | | 0 | 12 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | | 9 | 15 | | 15 | 9 |
| Turn Type | NA | | Perm | NA | Prot | |
| Protected Phases | 4 | | | 4 | 2 | |
| Permitted Phases | | | 4 | | | |
| Minimum Split (s) | 20.5 | | 20.5 | 20.5 | 20.0 | |
| Total Split (s) | 30.0 | | 30.0 | 30.0 | 20.0 | |
| Total Split (%) | 60.0% | | 60.0% | 60.0% | 40.0% | |
| Maximum Green (s) | 25.5 | | 25.5 | 25.5 | 16.0 | |
| Yellow Time (s) | 3.5 | | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | | 1.0 | 1.0 | 0.5 | |
| Lost Time Adjust (s) | 0.0 | | | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | | | 4.5 | 4.0 | |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Walk Time (s) | 5.0 | | 5.0 | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 11.0 | | 11.0 | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | | 0 | 0 | 0 | |
| Act Effct Green (s) | 25.5 | | | 25.5 | 16.0 | |
| Actuated g/C Ratio | 0.51 | | | 0.51 | 0.32 | |
| v/c Ratio | 0.42 | | | 0.83 | 0.31 | |
| Control Delay | 9.1 | | | 22.0 | 7.1 | |
| Queue Delay | 0.0 | | | 0.0 | 0.0 | |

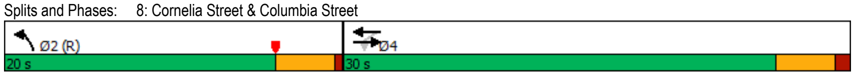




| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Total Delay | 9.1 | | | 22.0 | 7.1 | |
| LOS | A | | | C | A | |
| Approach Delay | 9.1 | | | 22.0 | 7.1 | |
| Approach LOS | A | | | C | A | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 50 | |
| Actuated Cycle Length: 50 | |
| Offset: 26 (52%), Referenced to phase 2:NBL and 6:, Start of Yellow | |
| Natural Cycle: 60 | |
| Control Type: Pretimed | |
| Maximum v/c Ratio: 0.83 | |
| Intersection Signal Delay: 15.7 | Intersection LOS: B |
| Intersection Capacity Utilization 62.7% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 8: Cornelia Street & Columbia Street



## Queues
## 8: Cornelia Street & Columbia Street



| Lane Group | EBT | WBT | NBL |
|---|---|---|---|
| Lane Group Flow (vph) | 392 | 675 | 195 |
| v/c Ratio | 0.42 | 0.83 | 0.31 |
| Control Delay | 9.1 | 22.0 | 7.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 |
| Total Delay | 9.1 | 22.0 | 7.1 |
| Queue Length 50th (ft) | 61 | 150 | 14 |
| Queue Length 95th (ft) | 87 | 200 | 37 |
| Internal Link Dist (ft) | 628 | 536 | 142 |
| Turn Bay Length (ft) | | | |
| Base Capacity (vph) | 930 | 818 | 624 |
| Starvation Cap Reductn | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.42 | 0.83 | 0.31 |

Intersection Summary



## Lanes, Volumes, Timings
## 9: Cornelia Street & Court Street



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 9 | 389 | 20 | 12 | 463 | 10 | 40 | 10 | 29 | 38 | 31 | 58 |
| Future Volume (vph) | 9 | 389 | 20 | 12 | 463 | 10 | 40 | 10 | 29 | 38 | 31 | 58 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.993 | | | 0.997 | | | 0.889 | | | 0.902 | |
| Flt Protected | | 0.999 | | | 0.999 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 3542 | 0 | 0 | 3562 | 0 | 1805 | 1689 | 0 | 1752 | 1714 | 0 |
| Flt Permitted | | 0.943 | | | 0.941 | | 0.690 | | | 0.727 | | |
| Satd. Flow (perm) | 0 | 3343 | 0 | 0 | 3355 | 0 | 1311 | 1689 | 0 | 1341 | 1714 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 8 | | | 3 | | | 34 | | | 67 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 720 | | | 199 | | | 282 | | | 715 | |
| Travel Time (s) | | 16.4 | | | 4.5 | | | 6.4 | | | 16.3 | |
| Peak Hour Factor | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 |
| Heavy Vehicles (%) | 9% | 1% | 0% | 0% | 1% | 0% | 0% | 0% | 0% | 3% | 0% | 0% |
| Adj. Flow (vph) | 10 | 452 | 23 | 14 | 538 | 12 | 47 | 12 | 34 | 44 | 36 | 67 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 485 | 0 | 0 | 564 | 0 | 47 | 46 | 0 | 44 | 103 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 4 | | | 2 | | | 2 | |
| Permitted Phases | 4 | | | 4 | | | 2 | | | 2 | | |
| Minimum Split (s) | 20.0 | 20.0 | | 20.0 | 20.0 | | 20.5 | 20.5 | | 20.5 | 20.5 | |
| Total Split (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 40.0 | 40.0 | | 40.0 | 40.0 | |
| Total Split (%) | 42.9% | 42.9% | | 42.9% | 42.9% | | 57.1% | 57.1% | | 57.1% | 57.1% | |
| Maximum Green (s) | 26.0 | 26.0 | | 26.0 | 26.0 | | 35.5 | 35.5 | | 35.5 | 35.5 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 0.5 | 0.5 | | 0.5 | 0.5 | | 1.0 | 1.0 | | 1.0 | 1.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | | 4.0 | | | 4.0 | | 4.5 | 4.5 | | 4.5 | 4.5 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 26.0 | | | 26.0 | | 35.5 | 35.5 | | 35.5 | 35.5 | |
| Actuated g/C Ratio | | 0.37 | | | 0.37 | | 0.51 | 0.51 | | 0.51 | 0.51 | |
| v/c Ratio | | 0.39 | | | 0.45 | | 0.07 | 0.05 | | 0.06 | 0.11 | |
| Control Delay | | 17.0 | | | 18.0 | | 9.2 | 4.5 | | 9.2 | 4.4 | |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |

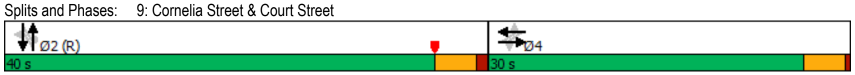
## Lanes, Volumes, Timings
## 9: Cornelia Street & Court Street

02/20/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Delay | | 17.0 | | | 18.0 | | 9.2 | 4.5 | | 9.2 | 4.4 | |
| LOS | | B | | | B | | A | A | | A | A | |
| Approach Delay | | 17.0 | | | 18.0 | | | 6.9 | | | 5.9 | |
| Approach LOS | | B | | | B | | | A | | | A | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 70 | |
| Actuated Cycle Length: 70 | |
| Offset: 25.5 (36%), Referenced to phase 2:NBSB and 6:, Start of Yellow | |
| Natural Cycle: 45 | |
| Control Type: Pretimed | |
| Maximum v/c Ratio: 0.45 | |
| Intersection Signal Delay: 15.4 | Intersection LOS: B |
| Intersection Capacity Utilization 37.7% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 9: Cornelia Street & Court Street






## Queues
## 9: Cornelia Street & Court Street

02/20/2019

| Lane Group | EBT | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 485 | 564 | 47 | 46 | 44 | 103 |
| v/c Ratio | 0.39 | 0.45 | 0.07 | 0.05 | 0.06 | 0.11 |
| Control Delay | 17.0 | 18.0 | 9.2 | 4.5 | 9.2 | 4.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 17.0 | 18.0 | 9.2 | 4.5 | 9.2 | 4.4 |
| Queue Length 50th (ft) | 77 | 93 | 10 | 2 | 9 | 7 |
| Queue Length 95th (ft) | 108 | 128 | 24 | 15 | 23 | 27 |
| Internal Link Dist (ft) | 640 | 119 | | 202 | | 635 |
| Turn Bay Length (ft) | | | | | | |
| Base Capacity (vph) | 1246 | 1248 | 664 | 873 | 680 | 902 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.39 | 0.45 | 0.07 | 0.05 | 0.06 | 0.11 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 67 | 1113 | 40 | 83 | 940 | 21 | 211 | 54 | 82 | 44 | 55 | 63 |
| Future Volume (vph) | 67 | 1113 | 40 | 83 | 940 | 21 | 211 | 54 | 82 | 44 | 55 | 63 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 100 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.995 | | | 0.997 | | | 0.910 | | | 0.920 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 3522 | 0 | 1770 | 3529 | 0 | 1770 | 1695 | 0 | 1770 | 1714 | 0 |
| Flt Permitted | 0.177 | | | 0.116 | | | 0.313 | | | 0.661 | | |
| Satd. Flow (perm) | 330 | 3522 | 0 | 216 | 3529 | 0 | 583 | 1695 | 0 | 1231 | 1714 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 5 | | | 3 | | | 65 | | | 41 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 699 | | | 306 | | | 449 | | | 508 | |
| Travel Time (s) | | 15.9 | | | 7.0 | | | 10.2 | | | 11.5 | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Adj. Flow (vph) | 74 | 1237 | 44 | 92 | 1044 | 23 | 234 | 60 | 91 | 49 | 61 | 70 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 74 | 1281 | 0 | 92 | 1067 | 0 | 234 | 151 | 0 | 49 | 131 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | | 4 | |
| Permitted Phases | 2 | | | 6 | | | 8 | | | 4 | | |





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Detector Phase | 5 | 2 | | 1 | 6 | | 3 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 15.0 | | 6.0 | 15.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 11.0 | 20.0 | | 11.0 | 20.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Total Split (s) | 11.0 | 68.0 | | 11.0 | 68.0 | | 18.0 | 31.0 | | 13.0 | 13.0 | |
| Total Split (%) | 10.0% | 61.8% | | 10.0% | 61.8% | | 16.4% | 28.2% | | 11.8% | 11.8% | |
| Maximum Green (s) | 6.0 | 63.0 | | 6.0 | 63.0 | | 13.0 | 26.0 | | 8.0 | 8.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Lead/Lag | Lag | Lead | | Lag | Lead | | Lead | | | Lag | Lag | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 2.0 | 2.0 | | 3.0 | 3.0 | | 3.0 | 2.0 | | 2.0 | 2.0 | |
| Recall Mode | None | C-Min | | None | C-Min | | None | None | | None | None | |
| Act Effct Green (s) | 70.1 | 59.8 | | 63.0 | 56.1 | | 30.6 | 30.6 | | 9.6 | 9.6 | |
| Actuated g/C Ratio | 0.64 | 0.54 | | 0.57 | 0.51 | | 0.28 | 0.28 | | 0.09 | 0.09 | |
| v/c Ratio | 0.21 | 0.67 | | 0.42 | 0.59 | | 0.70 | 0.29 | | 0.46 | 0.70 | |
| Control Delay | 4.7 | 6.8 | | 20.9 | 31.6 | | 46.1 | 19.1 | | 61.6 | 53.5 | |
| Queue Delay | 0.0 | 0.1 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 4.7 | 6.9 | | 20.9 | 31.6 | | 46.1 | 19.1 | | 61.6 | 53.5 | |
| LOS | A | A | | C | C | | D | B | | E | D | |
| Approach Delay | | 6.7 | | | 30.7 | | | 35.5 | | | 55.7 | |
| Approach LOS | | A | | | C | | | D | | | E | |

**Intersection Summary**

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 7 (6%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 22.2 Intersection LOS: C
Intersection Capacity Utilization 72.1% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 10: Broadway & 5S

| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 74 | 1281 | 92 | 1067 | 234 | 151 | 49 | 131 |
| v/c Ratio | 0.21 | 0.67 | 0.42 | 0.59 | 0.70 | 0.29 | 0.46 | 0.70 |
| Control Delay | 4.7 | 6.8 | 20.9 | 31.6 | 46.1 | 19.1 | 61.6 | 53.5 |
| Queue Delay | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 4.7 | 6.9 | 20.9 | 31.6 | 46.1 | 19.1 | 61.6 | 53.5 |
| Queue Length 50th (ft) | 6 | 127 | 31 | 370 | 130 | 44 | 33 | 61 |
| Queue Length 95th (ft) | m14 | m161 | 32 | 349 | #244 | 107 | #87 | #169 |
| Internal Link Dist (ft) | | 619 | | 226 | | 369 | | 428 |
| Turn Bay Length (ft) | 100 | | | | | | | |
| Base Capacity (vph) | 347 | 2100 | 219 | 2103 | 333 | 523 | 112 | 193 |
| Starvation Cap Reductn | 0 | 76 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.21 | 0.63 | 0.42 | 0.51 | 0.70 | 0.29 | 0.44 | 0.68 |

Intersection Summary

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



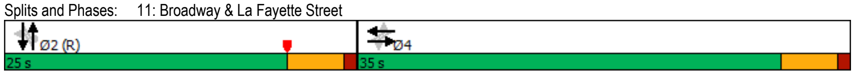


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 89 | 71 | 30 | 35 | 18 | 52 | 0 | 242 | 60 | 12 | 89 | 0 |
| Future Volume (vph) | 89 | 71 | 30 | 35 | 18 | 52 | 0 | 242 | 60 | 12 | 89 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.978 | | | 0.934 | | | 0.973 | | | | |
| Flt Protected | | 0.977 | | | 0.984 | | | | | | 0.994 | |
| Satd. Flow (prot) | 0 | 1444 | 0 | 0 | 1453 | 0 | 0 | 1594 | 0 | 0 | 1642 | 0 |
| Flt Permitted | | 0.811 | | | 0.863 | | | | | | 0.939 | |
| Satd. Flow (perm) | 0 | 1199 | 0 | 0 | 1274 | 0 | 0 | 1594 | 0 | 0 | 1551 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 23 | | | 65 | | | 22 | | | | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 643 | | | 310 | | | 316 | | | 449 | |
| Travel Time (s) | | 14.6 | | | 7.0 | | | 7.2 | | | 10.2 | |
| Peak Hour Factor | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| Heavy Vehicles (%) | 25% | 4% | 0% | 17% | 3% | 4% | 0% | 2% | 14% | 0% | 4% | 10% |
| Parking (#/hr) | | 0 | | | 0 | | | 0 | | | 0 | |
| Adj. Flow (vph) | 111 | 89 | 38 | 44 | 23 | 65 | 0 | 303 | 75 | 15 | 111 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 238 | 0 | 0 | 132 | 0 | 0 | 378 | 0 | 0 | 126 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.14 | 1.00 | 1.00 | 1.14 | 1.00 | 1.00 | 1.14 | 1.00 | 1.00 | 1.14 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Perm | NA | | Perm | NA | | | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 4 | | | 2 | | | 2 | |
| Permitted Phases | 4 | | | 4 | | | 2 | | | 2 | | |
| Minimum Split (s) | 21.0 | 21.0 | | 21.0 | 21.0 | | 21.0 | 21.0 | | 21.0 | 21.0 | |
| Total Split (s) | 35.0 | 35.0 | | 35.0 | 35.0 | | 25.0 | 25.0 | | 25.0 | 25.0 | |
| Total Split (%) | 58.3% | 58.3% | | 58.3% | 58.3% | | 41.7% | 41.7% | | 41.7% | 41.7% | |
| Maximum Green (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 20.0 | 20.0 | | 20.0 | 20.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 30.0 | | | 30.0 | | | 20.0 | | | 20.0 | |
| Actuated g/C Ratio | | 0.50 | | | 0.50 | | | 0.33 | | | 0.33 | |
| v/c Ratio | | 0.39 | | | 0.20 | | | 0.69 | | | 0.24 | |
| Control Delay | | 10.7 | | | 5.5 | | | 24.5 | | | 16.1 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 10.7 | | | 5.5 | | | 24.5 | | | 16.1 | |
| LOS | | B | | | A | | | C | | | B | |
| Approach Delay | | 10.7 | | | 5.5 | | | 24.5 | | | 16.1 | |
| Approach LOS | | B | | | A | | | C | | | B | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 20 (33%), Referenced to phase 2:NBSB and 6:, Start of Yellow | |
| Natural Cycle: 45 | |
| Control Type: Pretimed | |
| Maximum v/c Ratio: 0.69 | |
| Intersection Signal Delay: 16.7 | Intersection LOS: B |
| Intersection Capacity Utilization 40.7% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 11: Broadway & La Fayette Street








| Lane Group | EBT | WBT | NBT | SBT |
|---|---|---|---|---|
| Lane Group Flow (vph) | 238 | 132 | 378 | 126 |
| v/c Ratio | 0.39 | 0.20 | 0.69 | 0.24 |
| Control Delay | 10.7 | 5.5 | 24.5 | 16.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 10.7 | 5.5 | 24.5 | 16.1 |
| Queue Length 50th (ft) | 44 | 12 | 109 | 32 |
| Queue Length 95th (ft) | 75 | 30 | 164 | 59 |
| Internal Link Dist (ft) | 563 | 230 | 236 | 369 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 611 | 669 | 546 | 517 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.39 | 0.20 | 0.69 | 0.24 |

Intersection Summary

## Lanes, Volumes, Timings
## 12: Broadway & Columbia Street

02/20/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 79 | 269 | 8 | 18 | 417 | 73 | 7 | 71 | 50 | 8 | 65 | 66 |
| Future Volume (vph) | 79 | 269 | 8 | 18 | 417 | 73 | 7 | 71 | 50 | 8 | 65 | 66 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.997 | | | 0.981 | | | 0.947 | | | 0.936 | |
| Flt Protected | | 0.989 | | | 0.998 | | | 0.997 | | | 0.997 | |
| Satd. Flow (prot) | 0 | 1796 | 0 | 0 | 1796 | 0 | 0 | 1761 | 0 | 0 | 1610 | 0 |
| Flt Permitted | | 0.787 | | | 0.978 | | | 0.984 | | | 0.982 | |
| Satd. Flow (perm) | 0 | 1429 | 0 | 0 | 1760 | 0 | 0 | 1738 | 0 | 0 | 1585 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 3 | | | 25 | | | 59 | | | 83 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 616 | | | 684 | | | 1043 | | | 316 | |
| Travel Time (s) | | 14.0 | | | 15.5 | | | 23.7 | | | 7.2 | |
| Peak Hour Factor | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 |
| Heavy Vehicles (%) | 16% | 1% | 0% | 0% | 4% | 2% | 0% | 2% | 2% | 12% | 3% | 17% |
| Parking (#/hr) | 0 | | | | | | | | | | | |
| Adj. Flow (vph) | 105 | 359 | 11 | 24 | 556 | 97 | 9 | 95 | 67 | 11 | 87 | 88 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 475 | 0 | 0 | 677 | 0 | 0 | 171 | 0 | 0 | 186 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 4 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 4 | | | 2 | | | 6 | | |
| Minimum Split (s) | 20.5 | 20.5 | | 20.5 | 20.5 | | 20.0 | 20.0 | | 20.0 | 20.0 | |
| Total Split (s) | 35.0 | 35.0 | | 35.0 | 35.0 | | 20.0 | 20.0 | | 20.0 | 20.0 | |
| Total Split (%) | 63.6% | 63.6% | | 63.6% | 63.6% | | 36.4% | 36.4% | | 36.4% | 36.4% | |
| Maximum Green (s) | 30.5 | 30.5 | | 30.5 | 30.5 | | 16.0 | 16.0 | | 16.0 | 16.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 0.5 | 0.5 | | 0.5 | 0.5 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 4.5 | | | 4.5 | | | 4.0 | | | 4.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 30.5 | | | 30.5 | | | 16.0 | | | 16.0 | |
| Actuated g/C Ratio | | 0.55 | | | 0.55 | | | 0.29 | | | 0.29 | |
| v/c Ratio | | 0.60 | | | 0.69 | | | 0.31 | | | 0.36 | |
| Control Delay | | 12.1 | | | 13.0 | | | 12.1 | | | 11.3 | |



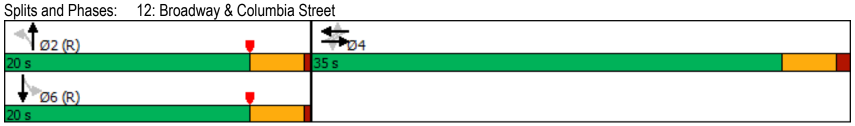
## Lanes, Volumes, Timings
## 12: Broadway & Columbia Street

02/20/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 12.1 | | | 13.0 | | | 12.1 | | | 11.3 | |
| LOS | | B | | | B | | | B | | | B | |
| Approach Delay | | 12.1 | | | 13.0 | | | 12.1 | | | 11.3 | |
| Approach LOS | | B | | | B | | | B | | | B | |

Intersection Summary
Area Type: Other
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 53 (96%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 55
Control Type: Pretimed
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 12.4 Intersection LOS: B
Intersection Capacity Utilization 67.4% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 12: Broadway & Columbia Street



## Queues
## 12: Broadway & Columbia Street

02/20/2019

| Lane Group | EBT | WBT | NBT | SBT |
|---|---|---|---|---|
| Lane Group Flow (vph) | 475 | 677 | 171 | 186 |
| v/c Ratio | 0.60 | 0.69 | 0.31 | 0.36 |
| Control Delay | 12.1 | 13.0 | 12.1 | 11.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 12.1 | 13.0 | 12.1 | 11.3 |
| Queue Length 50th (ft) | 91 | 135 | 27 | 25 |
| Queue Length 95th (ft) | 122 | 168 | 52 | 50 |
| Internal Link Dist (ft) | 536 | 604 | 963 | 236 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 793 | 987 | 547 | 519 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.60 | 0.69 | 0.31 | 0.36 |

Intersection Summary



## Lanes, Volumes, Timings
## 13: Court Street & Broadway

02/20/2019

| Lane Group | SBL | SBR | SEL | SET | NWT | NWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 80 | 81 | 101 | 358 | 375 | 40 |
| Future Volume (vph) | 80 | 81 | 101 | 358 | 375 | 40 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 |
| Frt | 0.932 | | | | 0.986 | |
| Flt Protected | 0.976 | | | 0.989 | | |
| Satd. Flow (prot) | 1540 | 0 | 0 | 3481 | 3518 | 0 |
| Flt Permitted | 0.976 | | | 0.989 | | |
| Satd. Flow (perm) | 1540 | 0 | 0 | 3481 | 3518 | 0 |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 1043 | | | 262 | 183 | |
| Travel Time (s) | 23.7 | | | 6.0 | 4.2 | |
| Peak Hour Factor | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 |
| Heavy Vehicles (%) | 2% | 0% | 1% | 3% | 1% | 3% |
| Parking (#/hr) | 0 | | | | | |
| Adj. Flow (vph) | 96 | 98 | 122 | 431 | 452 | 48 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 194 | 0 | 0 | 553 | 500 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 12 | | | 0 | 0 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.14 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Sign Control | Stop | | | Free | Free | |

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 43.9% ICU Level of Service A
Analysis Period (min) 15

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 5.3 | | | | | |

| Movement | SBL | SBR | SEL | SET | NWT | NWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 80 | 81 | 101 | 358 | 375 | 40 |
| Future Vol, veh/h | 80 | 81 | 101 | 358 | 375 | 40 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 83 | 83 | 83 | 83 | 83 | 83 |
| Heavy Vehicles, % | 2 | 0 | 1 | 3 | 1 | 3 |
| Mvmt Flow | 96 | 98 | 122 | 431 | 452 | 48 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 936 | 250 | 500 | 0 | - | 0 |
| Stage 1 | 476 | - | - | - | - | - |
| Stage 2 | 460 | - | - | - | - | - |
| Critical Hdwy | 6.84 | 6.9 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.84 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.84 | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 3.3 | 2.21 | - | - | - |
| Pot Cap-1 Maneuver | 264 | 756 | 1067 | - | - | - |
| Stage 1 | 591 | - | - | - | - | - |
| Stage 2 | 602 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 224 | 756 | 1067 | - | - | - |
| Mov Cap-2 Maneuver | 224 | - | - | - | - | - |
| Stage 1 | 502 | - | - | - | - | - |
| Stage 2 | 602 | - | - | - | - | - |

| Approach | SB | SE | NW |
|---|---|---|---|
| HCM Control Delay, s | 27.8 | 2.3 | 0 |
| HCM LOS | D | | |

| Minor Lane/Major Mvmt | NWT | NWR | SEL | SET | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 1067 | - | 347 |
| HCM Lane V/C Ratio | - | - | 0.114 | - | 0.559 |
| HCM Control Delay (s) | - | - | 8.8 | 0.4 | 27.8 |
| HCM Lane LOS | - | - | A | A | D |
| HCM 95th %tile Q(veh) | - | - | 0.4 | - | 3.2 |





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 1231 | 4 | 0 | 1011 | 1 | 0 | 0 | 24 | 0 | 0 | 16 |
| Future Volume (vph) | 0 | 1231 | 4 | 0 | 1011 | 1 | 0 | 0 | 24 | 0 | 0 | 16 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 100 | | 0 | 100 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 1 | 0 | | 0 | 0 | | 1 | 0 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | | | | | | | 0.865 | | | 0.865 |
| Flt Protected | | | | | | | | | | | | |
| Satd. Flow (prot) | 0 | 3539 | 0 | 0 | 3539 | 0 | 0 | 0 | 1611 | 0 | 0 | 1611 |
| Flt Permitted | | | | | | | | | | | | |
| Satd. Flow (perm) | 0 | 3539 | 0 | 0 | 3539 | 0 | 0 | 0 | 1611 | 0 | 0 | 1611 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 306 | | | 333 | | | 408 | | | 317 | |
| Travel Time (s) | | 7.0 | | | 7.6 | | | 9.3 | | | 7.2 | |
| Confl. Peds. (#/hr) | | | | | | | 15 | | | | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Adj. Flow (vph) | 0 | 1368 | 4 | 0 | 1123 | 1 | 0 | 0 | 27 | 0 | 0 | 18 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1372 | 0 | 0 | 1124 | 0 | 0 | 0 | 27 | 0 | 0 | 18 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Sign Control | | Free | | | Free | | | Yield | | | Yield | |

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 44.2% ICU Level of Service A

Analysis Period (min) 15

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 179 | 76 | 433 | 227 | 0 | 0 | 0 | 0 | 260 | 78 | 10 |
| Future Volume (vph) | 0 | 179 | 76 | 433 | 227 | 0 | 0 | 0 | 0 | 260 | 78 | 10 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 0.97 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 |
| Frt | | | 0.850 | | | | | | | | | 0.850 |
| Flt Protected | | | | 0.950 | | | | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 3539 | 1583 | 3433 | 1863 | 0 | 0 | 0 | 0 | 3433 | 1863 | 1583 |
| Flt Permitted | | | | 0.950 | | | | | | 0.950 | | |
| Satd. Flow (perm) | 0 | 3539 | 1583 | 3433 | 1863 | 0 | 0 | 0 | 0 | 3433 | 1863 | 1583 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 194 | | | | | | | | | 218 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 279 | | | 199 | | | 333 | | | 248 | |
| Travel Time (s) | | 6.3 | | | 4.5 | | | 7.6 | | | 5.6 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 0 | 195 | 83 | 471 | 247 | 0 | 0 | 0 | 0 | 283 | 85 | 11 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 195 | 83 | 471 | 247 | 0 | 0 | 0 | 0 | 283 | 85 | 11 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 24 | | | 24 | | | 24 | | | 24 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | | 2 | 1 | 1 | 2 | | | | | 1 | 2 | 1 |
| Detector Template | | Thru | Right | Left | Thru | | | | | Left | Thru | Right |
| Leading Detector (ft) | | 100 | 20 | 20 | 100 | | | | | 20 | 100 | 20 |
| Trailing Detector (ft) | | 0 | 0 | 0 | 0 | | | | | 0 | 0 | 0 |
| Detector 1 Position(ft) | | 0 | 0 | 0 | 0 | | | | | 0 | 0 | 0 |
| Detector 1 Size(ft) | | 6 | 20 | 20 | 6 | | | | | 20 | 6 | 20 |
| Detector 1 Type | | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | | | | | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | | 0.0 | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | | 0.0 | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | | 0.0 | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(ft) | | 94 | | | 94 | | | | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | | | 0.0 | |
| Turn Type | | NA | Perm | Prot | NA | | | | | Split | NA | Perm |
| Protected Phases | | 2 | | 1 | 6 9 | | | | | 8 | 8 | |
| Permitted Phases | | | 2 | | | | | | | | | 8 |
| Detector Phase | | 2 | 2 | 1 | 6 9 | | | | | 8 | 8 | 8 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | 10.0 | 10.0 | 4.0 | | | | | | 4.0 | 4.0 | 4.0 |





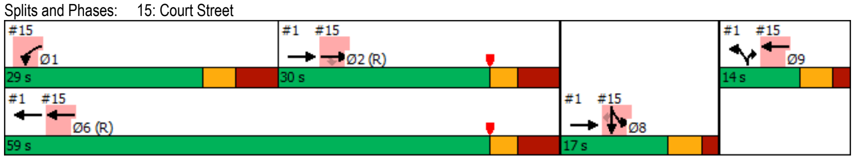
| Lane Group | Ø6 | Ø9 |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | | |
| Future Volume (vph) | | |
| Ideal Flow (vphpl) | | |
| Lane Util. Factor | | |
| Frt | | |
| Flt Protected | | |
| Satd. Flow (prot) | | |
| Flt Permitted | | |
| Satd. Flow (perm) | | |
| Right Turn on Red | | |
| Satd. Flow (RTOR) | | |
| Link Speed (mph) | | |
| Link Distance (ft) | | |
| Travel Time (s) | | |
| Peak Hour Factor | | |
| Adj. Flow (vph) | | |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | | |
| Enter Blocked Intersection | | |
| Lane Alignment | | |
| Median Width(ft) | | |
| Link Offset(ft) | | |
| Crosswalk Width(ft) | | |
| Two way Left Turn Lane | | |
| Headway Factor | | |
| Turning Speed (mph) | | |
| Number of Detectors | | |
| Detector Template | | |
| Leading Detector (ft) | | |
| Trailing Detector (ft) | | |
| Detector 1 Position(ft) | | |
| Detector 1 Size(ft) | | |
| Detector 1 Type | | |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | | |
| Detector 1 Queue (s) | | |
| Detector 1 Delay (s) | | |
| Detector 2 Position(ft) | | |
| Detector 2 Size(ft) | | |
| Detector 2 Type | | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | | |
| Turn Type | | |
| Protected Phases | 6 | 9 |
| Permitted Phases | | |
| Detector Phase | | |
| Switch Phase | | |
| Minimum Initial (s) | 10.0 | 4.0 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Split (s) | | 17.5 | 17.5 | 24.0 | | | | | | 9.5 | 9.5 | 9.5 |
| Total Split (s) | | 30.0 | 30.0 | 29.0 | | | | | | 17.0 | 17.0 | 17.0 |
| Total Split (%) | | 33.3% | 33.3% | 32.2% | | | | | | 18.9% | 18.9% | 18.9% |
| Maximum Green (s) | | 22.5 | 22.5 | 21.0 | | | | | | 11.5 | 11.5 | 11.5 |
| Yellow Time (s) | | 3.0 | 3.0 | 3.5 | | | | | | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | | 4.5 | 4.5 | 4.5 | | | | | | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | | 0.0 | 0.0 | 0.0 | | | | | | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | | 7.5 | 7.5 | 8.0 | | | | | | 5.5 | 5.5 | 5.5 |
| Lead/Lag | | Lag | Lag | Lead | | | | | | | | |
| Lead-Lag Optimize? | | Yes | Yes | Yes | | | | | | | | |
| Vehicle Extension (s) | | 3.0 | 3.0 | 3.0 | | | | | | 3.0 | 3.0 | 3.0 |
| Recall Mode | | C-Max | C-Max | None | | | | | | None | None | None |
| Walk Time (s) | | 5.0 | 5.0 | | | | | | | 5.0 | 5.0 | 5.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | | | | | | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 0 | 0 | | | | | | | 0 | 0 | 0 |
| Act Effct Green (s) | | 27.0 | 27.0 | 17.3 | 66.0 | | | | | 11.0 | 11.0 | 11.0 |
| Actuated g/C Ratio | | 0.30 | 0.30 | 0.19 | 0.73 | | | | | 0.12 | 0.12 | 0.12 |
| v/c Ratio | | 0.18 | 0.14 | 0.71 | 0.18 | | | | | 0.67 | 0.37 | 0.03 |
| Control Delay | | 25.2 | 0.5 | 38.1 | 1.1 | | | | | 46.3 | 41.2 | 0.1 |
| Queue Delay | | 0.0 | 0.0 | 2.5 | 0.6 | | | | | 0.0 | 0.0 | 0.0 |
| Total Delay | | 25.2 | 0.5 | 40.6 | 1.7 | | | | | 46.3 | 41.2 | 0.1 |
| LOS | | C | A | D | A | | | | | D | D | A |
| Approach Delay | | 17.8 | | | 27.2 | | | | | | 43.8 | |
| Approach LOS | | B | | | C | | | | | | D | |

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 29.9 Intersection LOS: C
Intersection Capacity Utilization 50.3% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 15: Court Street








| Lane Group | Ø6 | Ø9 |
|---|---|---|
| Minimum Split (s) | 23.5 | 21.5 |
| Total Split (s) | 59.0 | 14.0 |
| Total Split (%) | 66% | 16% |
| Maximum Green (s) | 51.5 | 8.5 |
| Yellow Time (s) | 3.0 | 3.5 |
| All-Red Time (s) | 4.5 | 2.0 |
| Lost Time Adjust (s) | | |
| Total Lost Time (s) | | |
| Lead/Lag | | |
| Lead-Lag Optimize? | | |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | C-Max | None |
| Walk Time (s) | 5.0 | |
| Flash Dont Walk (s) | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | |
| Act Effct Green (s) | | |
| Actuated g/C Ratio | | |
| v/c Ratio | | |
| Control Delay | | |
| Queue Delay | | |
| Total Delay | | |
| LOS | | |
| Approach Delay | | |
| Approach LOS | | |

Intersection Summary

## Queues
## 15: Court Street

02/20/2019

| Lane Group | EBT | EBR | WBL | WBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 195 | 83 | 471 | 247 | 283 | 85 | 11 |
| v/c Ratio | 0.18 | 0.14 | 0.71 | 0.18 | 0.67 | 0.37 | 0.03 |
| Control Delay | 25.2 | 0.5 | 38.1 | 1.1 | 46.3 | 41.2 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 2.5 | 0.6 | 0.0 | 0.0 | 0.0 |
| Total Delay | 25.2 | 0.5 | 40.6 | 1.7 | 46.3 | 41.2 | 0.1 |
| Queue Length 50th (ft) | 43 | 0 | 91 | 5 | 79 | 45 | 0 |
| Queue Length 95th (ft) | 75 | 0 | 121 | 8 | 121 | 90 | 0 |
| Internal Link Dist (ft) | 199 | | | 119 | | 168 | |
| Turn Bay Length (ft) | | | | | | | |
| Base Capacity (vph) | 1061 | 610 | 801 | 1310 | 438 | 238 | 392 |
| Starvation Cap Reductn | 0 | 0 | 209 | 732 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.18 | 0.14 | 0.80 | 0.43 | 0.65 | 0.36 | 0.03 |

Intersection Summary



## Lanes, Volumes, Timings
## 16: La Fayette Street & Washington St

02/20/2019

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 6 | 54 | 18 | 19 | 9 | 7 |
| Future Volume (vph) | 6 | 54 | 18 | 19 | 9 | 7 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | 0.931 | | 0.940 | |
| Flt Protected | | 0.995 | | | 0.973 | |
| Satd. Flow (prot) | 0 | 1853 | 1734 | 0 | 1704 | 0 |
| Flt Permitted | | 0.995 | | | 0.973 | |
| Satd. Flow (perm) | 0 | 1853 | 1734 | 0 | 1704 | 0 |
| Link Speed (mph) | | 30 | 30 | | 30 | |
| Link Distance (ft) | | 310 | 313 | | 408 | |
| Travel Time (s) | | 7.0 | 7.1 | | 9.3 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 7 | 59 | 20 | 21 | 10 | 8 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 66 | 41 | 0 | 18 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 0 | 0 | | 12 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Sign Control | | Free | Free | | Stop | |

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 17.9% ICU Level of Service A
Analysis Period (min) 15

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 1.6 | | | | | |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 6 | 54 | 18 | 19 | 9 | 7 |
| Future Vol, veh/h | 6 | 54 | 18 | 19 | 9 | 7 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 7 | 59 | 20 | 21 | 10 | 8 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 41 | 0 | - | 0 | 104 | 31 |
| Stage 1 | - | - | - | - | 31 | - |
| Stage 2 | - | - | - | - | 73 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1568 | - | - | - | 894 | 1043 |
| Stage 1 | - | - | - | - | 992 | - |
| Stage 2 | - | - | - | - | 950 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1568 | - | - | - | 890 | 1043 |
| Mov Cap-2 Maneuver | - | - | - | - | 890 | - |
| Stage 1 | - | - | - | - | 987 | - |
| Stage 2 | - | - | - | - | 950 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.7 | 0 | 8.9 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1568 | - | - | - | 951 |
| HCM Lane V/C Ratio | 0.004 | - | - | - | 0.018 |
| HCM Control Delay (s) | 7.3 | 0 | - | - | 8.9 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.1 |





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 31 | 1228 | 21 | 0 | 968 | 57 | 0 | 0 | 32 | 0 | 0 | 37 |
| Future Volume (vph) | 31 | 1228 | 21 | 0 | 968 | 57 | 0 | 0 | 32 | 0 | 0 | 37 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | 0 | 150 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 1 | | 0 | 0 | | 0 | 0 | | 1 | 0 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.998 | | | 0.992 | | | | 0.865 | | | 0.865 |
| Flt Protected | 0.950 | | | | | | | | | | | |
| Satd. Flow (prot) | 1770 | 3466 | 0 | 0 | 3385 | 0 | 0 | 0 | 822 | 0 | 0 | 1611 |
| Flt Permitted | 0.950 | | | | | | | | | | | |
| Satd. Flow (perm) | 1770 | 3466 | 0 | 0 | 3385 | 0 | 0 | 0 | 822 | 0 | 0 | 1611 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 333 | | | 392 | | | 394 | | | 252 | |
| Travel Time (s) | | 7.6 | | | 8.9 | | | 9.0 | | | 5.7 | |
| Peak Hour Factor | 0.92 | 0.90 | 0.90 | 0.90 | 0.90 | 0.92 | 0.90 | 0.92 | 0.90 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 2% | 4% | 0% | 11% | 6% | 2% | 0% | 2% | 100% | 2% | 2% | 2% |
| Adj. Flow (vph) | 34 | 1364 | 23 | 0 | 1076 | 62 | 0 | 0 | 36 | 0 | 0 | 40 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 34 | 1387 | 0 | 0 | 1138 | 0 | 0 | 0 | 36 | 0 | 0 | 40 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Sign Control | | Free | | | Free | | | Yield | | | Yield | |

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 44.6% ICU Level of Service A

Analysis Period (min) 15

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ✥ | | | ✥ | | | ✥ | | | ✥ | |
| Traffic Volume (vph) | 19 | 111 | 16 | 14 | 16 | 35 | 9 | 8 | 15 | 8 | 2 | 26 |
| Future Volume (vph) | 19 | 111 | 16 | 14 | 16 | 35 | 9 | 8 | 15 | 8 | 2 | 26 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.986 | | | 0.927 | | | 0.938 | | | 0.903 | |
| Flt Protected | | 0.993 | | | 0.989 | | | 0.986 | | | 0.989 | |
| Satd. Flow (prot) | 0 | 1597 | 0 | 0 | 1540 | 0 | 0 | 1748 | 0 | 0 | 1664 | 0 |
| Flt Permitted | | 0.993 | | | 0.989 | | | 0.986 | | | 0.989 | |
| Satd. Flow (perm) | 0 | 1597 | 0 | 0 | 1540 | 0 | 0 | 1748 | 0 | 0 | 1664 | 0 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 313 | | | 237 | | | 181 | | | 394 | |
| Travel Time (s) | | 7.1 | | | 5.4 | | | 4.1 | | | 9.0 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 2% | 6% | 0% | 0% | 3% | 2% | 0% | 2% | 0% | 2% | 2% | 2% |
| Parking (#/hr) | | 0 | | | 0 | | | | | | | |
| Adj. Flow (vph) | 21 | 121 | 17 | 15 | 17 | 38 | 10 | 9 | 16 | 9 | 2 | 28 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 159 | 0 | 0 | 70 | 0 | 0 | 35 | 0 | 0 | 39 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.14 | 1.00 | 1.00 | 1.14 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |

| Intersection Summary | | |
|---|---|---|
| Area Type: Other | | |
| Control Type: Unsignalized | | |
| Intersection Capacity Utilization 19.3% | ICU Level of Service A | |
| Analysis Period (min) 15 | | |





| Intersection | |
|---|---|
| Int Delay, s/veh | 3.2 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ✥ | | | ✥ | | | ✥ | | | ✥ | |
| Traffic Vol, veh/h | 19 | 111 | 16 | 14 | 16 | 35 | 9 | 8 | 15 | 8 | 2 | 26 |
| Future Vol, veh/h | 19 | 111 | 16 | 14 | 16 | 35 | 9 | 8 | 15 | 8 | 2 | 26 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 6 | 0 | 0 | 3 | 2 | 0 | 2 | 0 | 2 | 2 | 2 |
| Mvmt Flow | 21 | 121 | 17 | 15 | 17 | 38 | 10 | 9 | 16 | 9 | 2 | 28 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 55 | 0 | 0 | 138 | 0 | 0 | 253 | 257 | 130 | 250 | 246 | 36 |
| Stage 1 | - | - | - | - | - | - | 172 | 172 | - | 66 | 66 | - |
| Stage 2 | - | - | - | - | - | - | 81 | 85 | - | 184 | 180 | - |
| Critical Hdwy | 4.12 | - | - | 4.1 | - | - | 7.1 | 6.52 | 6.2 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.2 | - | - | 3.5 | 4.018 | 3.3 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1550 | - | - | 1458 | - | - | 704 | 647 | 925 | 703 | 656 | 1037 |
| Stage 1 | - | - | - | - | - | - | 835 | 756 | - | 945 | 840 | - |
| Stage 2 | - | - | - | - | - | - | 932 | 824 | - | 818 | 750 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1550 | - | - | 1458 | - | - | 670 | 630 | 925 | 670 | 639 | 1037 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 670 | 630 | - | 670 | 639 | - |
| Stage 1 | - | - | - | - | - | - | 822 | 745 | - | 931 | 831 | - |
| Stage 2 | - | - | - | - | - | - | 894 | 815 | - | 782 | 739 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 1 | 1.6 | 10 | 9.2 |
| HCM LOS | | | B | A |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 756 | 1550 | - | - | 1458 | - | - | 897 |
| HCM Lane V/C Ratio | 0.046 | 0.013 | - | - | 0.01 | - | - | 0.044 |
| HCM Control Delay (s) | 10 | 7.4 | 0 | - | 7.5 | 0 | - | 9.2 |
| HCM Lane LOS | B | A | A | - | A | A | - | A |
| HCM 95th %tile Q(veh) | 0.1 | 0 | - | - | 0 | - | - | 0.1 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 15 | 1166 | 127 | 126 | 633 | 9 | 110 | 445 | 110 | 30 | 425 | 21 |
| Future Volume (vph) | 15 | 1166 | 127 | 126 | 633 | 9 | 110 | 445 | 110 | 30 | 425 | 21 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | 150 | 150 | | 0 | 150 | | 0 | 150 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 |
| Frt | | 0.985 | | | 0.998 | | | 0.970 | | | 0.993 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 3426 | 0 | 1770 | 3498 | 0 | 1770 | 1807 | 0 | 1770 | 3531 | 0 |
| Flt Permitted | 0.319 | | | 0.083 | | | 0.414 | | | 0.108 | | |
| Satd. Flow (perm) | 594 | 3426 | 0 | 155 | 3498 | 0 | 771 | 1807 | 0 | 201 | 3531 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 13 | | | 1 | | | 13 | | | 5 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 392 | | | 365 | | | 413 | | | 307 | |
| Travel Time (s) | | 8.9 | | | 8.3 | | | 9.4 | | | 7.0 | |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Heavy Vehicles (%) | 2% | 4% | 2% | 2% | 3% | 2% | 2% | 2% | 2% | 2% | 1% | 12% |
| Adj. Flow (vph) | 16 | 1215 | 132 | 131 | 659 | 9 | 115 | 464 | 115 | 31 | 443 | 22 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 16 | 1347 | 0 | 131 | 668 | 0 | 115 | 579 | 0 | 31 | 465 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | pm+pt | NA | | pm+pt | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |



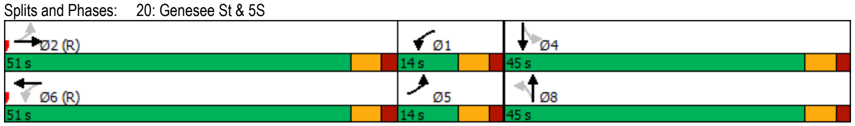


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Permitted Phases | 2 | | | 6 | | | 8 | | | 4 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 8 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 8.0 | 15.0 | | 8.0 | 15.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 14.0 | 46.0 | | 14.0 | 46.0 | | 42.0 | 42.0 | | 42.0 | 42.0 | |
| Total Split (s) | 14.0 | 51.0 | | 14.0 | 51.0 | | 45.0 | 45.0 | | 45.0 | 45.0 | |
| Total Split (%) | 12.7% | 46.4% | | 12.7% | 46.4% | | 40.9% | 40.9% | | 40.9% | 40.9% | |
| Maximum Green (s) | 8.0 | 45.0 | | 8.0 | 45.0 | | 39.0 | 39.0 | | 39.0 | 39.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Lead/Lag | Lag | Lead | | Lag | Lead | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 1.0 | | 3.0 | 3.0 | | 2.5 | 2.5 | | 2.5 | 2.5 | |
| Recall Mode | None | C-Min | | None | C-Min | | None | None | | None | None | |
| Walk Time (s) | | 7.0 | | | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | | 33.0 | | | 33.0 | | 29.0 | 29.0 | | 29.0 | 29.0 | |
| Pedestrian Calls (#/hr) | | 0 | | | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | 49.6 | 46.8 | | 57.6 | 56.0 | | 37.2 | 37.2 | | 37.2 | 37.2 | |
| Actuated g/C Ratio | 0.45 | 0.43 | | 0.52 | 0.51 | | 0.34 | 0.34 | | 0.34 | 0.34 | |
| v/c Ratio | 0.04 | 0.92 | | 0.66 | 0.37 | | 0.44 | 0.94 | | 0.46 | 0.39 | |
| Control Delay | 4.5 | 23.1 | | 51.6 | 19.3 | | 34.0 | 58.2 | | 52.4 | 28.2 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 48.5 | | 0.0 | 0.0 | |
| Total Delay | 4.5 | 23.1 | | 51.6 | 19.3 | | 34.0 | 106.6 | | 52.4 | 28.2 | |
| LOS | A | C | | D | B | | C | F | | D | C | |
| Approach Delay | | 22.9 | | | 24.6 | | | 94.6 | | | 29.7 | |
| Approach LOS | | C | | | C | | | F | | | C | |

**Intersection Summary**

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 30 (27%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 105
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 39.1 Intersection LOS: D
Intersection Capacity Utilization 98.4% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 20: Genesee St & 5S



## Queues
## 20: Genesee St & 5S

02/20/2019

| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 16 | 1347 | 131 | 668 | 115 | 579 | 31 | 465 |
| v/c Ratio | 0.04 | 0.92 | 0.66 | 0.37 | 0.44 | 0.94 | 0.46 | 0.39 |
| Control Delay | 4.5 | 23.1 | 51.6 | 19.3 | 34.0 | 58.2 | 52.4 | 28.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 48.5 | 0.0 | 0.0 |
| Total Delay | 4.5 | 23.1 | 51.6 | 19.3 | 34.0 | 106.6 | 52.4 | 28.2 |
| Queue Length 50th (ft) | 3 | 454 | 44 | 135 | 61 | 375 | 17 | 125 |
| Queue Length 95th (ft) | m2 | #610 | #149 | 269 | 117 | #586 | #58 | 170 |
| Internal Link Dist (ft) | | 312 | | 285 | | 333 | | 227 |
| Turn Bay Length (ft) | 150 | | 150 | | 150 | | 150 | |
| Base Capacity (vph) | 374 | 1465 | 198 | 1845 | 273 | 649 | 71 | 1255 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 139 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.04 | 0.92 | 0.66 | 0.36 | 0.42 | 1.14 | 0.44 | 0.37 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



## Lanes, Volumes, Timings
## 22: La Fayette Street/Bleecker Street & Genesee St

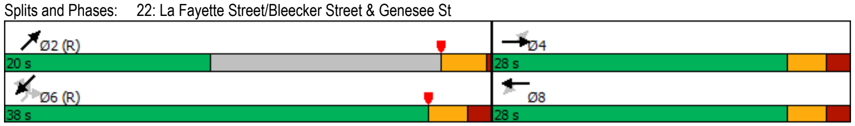
02/20/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 68 | 28 | 16 | 131 | 39 | 24 | 19 | 480 | 40 | 105 | 430 | 18 |
| Future Volume (vph) | 68 | 28 | 16 | 131 | 39 | 24 | 19 | 480 | 40 | 105 | 430 | 18 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Frt | | 0.980 | | | 0.984 | | | 0.989 | | | 0.995 | |
| Flt Protected | | 0.971 | | | 0.967 | | | 0.998 | | | 0.991 | |
| Satd. Flow (prot) | 0 | 1588 | 0 | 0 | 1564 | 0 | 0 | 3501 | 0 | 0 | 3490 | 0 |
| Flt Permitted | | 0.762 | | | 0.748 | | | 0.926 | | | 0.741 | |
| Satd. Flow (perm) | 0 | 1246 | 0 | 0 | 1210 | 0 | 0 | 3249 | 0 | 0 | 2609 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 14 | | | 11 | | | 19 | | | 7 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 237 | | | 304 | | | 385 | | | 413 | |
| Travel Time (s) | | 5.4 | | | 6.9 | | | 8.8 | | | 9.4 | |
| Peak Hour Factor | 0.92 | 0.88 | 0.88 | 0.88 | 0.88 | 0.92 | 0.88 | 0.92 | 0.88 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 2% | 5% | 0% | 5% | 2% | 2% | 0% | 2% | 0% | 2% | 2% | 2% |
| Parking (#/hr) | | 0 | | | 0 | | | | | | | |
| Adj. Flow (vph) | 74 | 32 | 18 | 149 | 44 | 26 | 22 | 522 | 45 | 114 | 467 | 20 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 124 | 0 | 0 | 219 | 0 | 0 | 589 | 0 | 0 | 601 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.14 | 1.00 | 1.00 | 1.14 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | Perm | NA | | D.Pm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 6 | | | 6 | | |
| Detector Phase | 4 | 4 | | 8 | 8 | | 6 | 2 | | 6 | 6 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Minimum Split (s) | 27.0 | 27.0 | | 23.0 | 23.0 | | 23.0 | 20.0 | | 23.0 | 23.0 | |
| Total Split (s) | 28.0 | 28.0 | | 28.0 | 28.0 | | 38.0 | 20.0 | | 38.0 | 38.0 | |
| Total Split (%) | 42.4% | 42.4% | | 42.4% | 42.4% | | 57.6% | 30.3% | | 57.6% | 57.6% | |
| Maximum Green (s) | 23.0 | 23.0 | | 23.0 | 23.0 | | 33.0 | 16.0 | | 33.0 | 33.0 | |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.5 | | 3.0 | 3.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 0.5 | | 2.0 | 2.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | | 4.0 | | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | Max | Max | | Max | Max | | C-Max | C-Max | | C-Max | C-Max | |
| Walk Time (s) | 8.0 | 8.0 | | 2.0 | 2.0 | | 2.0 | 5.0 | | 2.0 | 2.0 | |
| Flash Dont Walk (s) | 14.0 | 14.0 | | 7.0 | 7.0 | | 7.0 | 11.0 | | 7.0 | 7.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 23.0 | | | 23.0 | | | 34.0 | | | 33.0 | |
| Actuated g/C Ratio | | 0.35 | | | 0.35 | | | 0.52 | | | 0.50 | |
| v/c Ratio | | 0.28 | | | 0.51 | | | 0.35 | | | 0.46 | |
| Control Delay | | 15.8 | | | 21.3 | | | 9.9 | | | 12.0 | |
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 15.8 | | | 21.3 | | | 9.9 | | | 12.0 | |
| LOS | | B | | | C | | | A | | | B | |
| Approach Delay | | 15.8 | | | 21.3 | | | 9.9 | | | 12.0 | |
| Approach LOS | | B | | | C | | | A | | | B | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 66 | |
| Actuated Cycle Length: 66 | |
| Offset: 0 (0%), Referenced to phase 2:NET and 6:NESW, Start of Yellow, Master Intersection | |
| Natural Cycle: 50 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.51 | |
| Intersection Signal Delay: 12.8 | Intersection LOS: B |
| Intersection Capacity Utilization 55.7% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 22: La Fayette Street/Bleecker Street & Genesee St








| Lane Group | EBT | WBT | NET | SWT |
|---|---|---|---|---|
| Lane Group Flow (vph) | 124 | 219 | 589 | 601 |
| v/c Ratio | 0.28 | 0.51 | 0.35 | 0.46 |
| Control Delay | 15.8 | 21.3 | 9.9 | 12.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 15.8 | 21.3 | 9.9 | 12.0 |
| Queue Length 50th (ft) | 31 | 65 | 65 | 75 |
| Queue Length 95th (ft) | 67 | 123 | 97 | 114 |
| Internal Link Dist (ft) | 157 | 224 | 305 | 333 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 443 | 428 | 1682 | 1308 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.28 | 0.51 | 0.35 | 0.46 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 93 | 175 | 69 | 39 | 231 | 78 | 73 | 355 | 20 | 34 | 353 | 166 |
| Future Volume (vph) | 93 | 175 | 69 | 39 | 231 | 78 | 73 | 355 | 20 | 34 | 353 | 166 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Frt | | 0.972 | | | 0.970 | | | 0.993 | | | 0.955 | |
| Flt Protected | | 0.986 | | | 0.994 | | | 0.992 | | | 0.997 | |
| Satd. Flow (prot) | 0 | 1778 | 0 | 0 | 1794 | 0 | 0 | 3464 | 0 | 0 | 3353 | 0 |
| Flt Permitted | | 0.737 | | | 0.921 | | | 0.723 | | | 0.889 | |
| Satd. Flow (perm) | 0 | 1329 | 0 | 0 | 1662 | 0 | 0 | 2524 | 0 | 0 | 2990 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 17 | | | 23 | | | 7 | | | 109 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 684 | | | 274 | | | 282 | | | 385 | |
| Travel Time (s) | | 15.5 | | | 6.2 | | | 6.4 | | | 8.8 | |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Heavy Vehicles (%) | 3% | 3% | 0% | 13% | 1% | 0% | 0% | 1% | 42% | 6% | 1% | 5% |
| Adj. Flow (vph) | 107 | 201 | 79 | 45 | 266 | 90 | 84 | 408 | 23 | 39 | 406 | 191 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 387 | 0 | 0 | 401 | 0 | 0 | 515 | 0 | 0 | 636 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | pm+pt | NA | | Perm | NA | | pm+pt | NA | |
| Protected Phases | | 4 | | 3 | 8 | | | 6 | | 5 | 2 | |
| Permitted Phases | 4 | | | 8 | | | 6 | | | 2 | | |
| Detector Phase | 4 | 4 | | 3 | 8 | | 6 | 6 | | 5 | 2 | |
| Switch Phase | | | | | | | | | | | | |



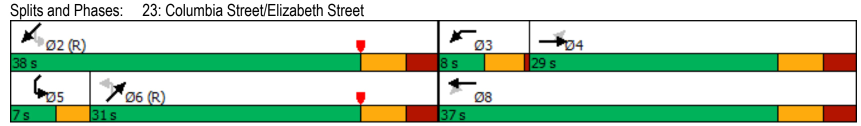


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Initial (s) | 5.0 | 5.0 | | 4.0 | 1.0 | | 5.0 | 5.0 | | 4.0 | 5.0 | |
| Minimum Split (s) | 23.0 | 23.0 | | 8.0 | 23.0 | | 23.5 | 23.5 | | 7.0 | 23.5 | |
| Total Split (s) | 29.0 | 29.0 | | 8.0 | 37.0 | | 31.0 | 31.0 | | 7.0 | 38.0 | |
| Total Split (%) | 38.7% | 38.7% | | 10.7% | 49.3% | | 41.3% | 41.3% | | 9.3% | 50.7% | |
| Maximum Green (s) | 22.0 | 22.0 | | 4.0 | 30.0 | | 24.0 | 24.0 | | 4.0 | 31.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 3.5 | 4.0 | | 4.0 | 4.0 | | 3.0 | 4.0 | |
| All-Red Time (s) | 3.0 | 3.0 | | 0.5 | 3.0 | | 3.0 | 3.0 | | 0.0 | 3.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 7.0 | | | 7.0 | | | 7.0 | | | 7.0 | |
| Lead/Lag | Lag | Lag | | Lead | | | Lag | Lag | | Lead | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | | | Yes | Yes | | Yes | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | Max | Max | | None | Max | | C-Max | C-Max | | None | C-Max | |
| Walk Time (s) | 5.0 | 5.0 | | | 5.0 | | 5.0 | 5.0 | | | 5.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | | 11.0 | | 11.0 | 11.0 | | | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | | 0 | | 0 | 0 | | | 0 | |
| Act Effct Green (s) | | 30.0 | | | 30.0 | | | 31.0 | | | 31.0 | |
| Actuated g/C Ratio | | 0.40 | | | 0.40 | | | 0.41 | | | 0.41 | |
| v/c Ratio | | 0.72 | | | 0.59 | | | 0.49 | | | 0.49 | |
| Control Delay | | 27.1 | | | 21.0 | | | 16.9 | | | 14.7 | |
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 27.1 | | | 21.0 | | | 16.9 | | | 14.7 | |
| LOS | | C | | | C | | | B | | | B | |
| Approach Delay | | 27.1 | | | 21.0 | | | 16.9 | | | 14.7 | |
| Approach LOS | | C | | | C | | | B | | | B | |

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 1 (1%), Referenced to phase 2:SWTL and 6:NETL, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 19.1 Intersection LOS: B
Intersection Capacity Utilization 82.7% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 23: Columbia Street/Elizabeth Street



## Queues
### 23: Columbia Street/Elizabeth Street

02/20/2019

| Lane Group | EBT | WBT | NET | SWT |
|---|---|---|---|---|
| Lane Group Flow (vph) | 387 | 401 | 515 | 636 |
| v/c Ratio | 0.72 | 0.59 | 0.49 | 0.49 |
| Control Delay | 27.1 | 21.0 | 16.9 | 14.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 27.1 | 21.0 | 16.9 | 14.7 |
| Queue Length 50th (ft) | 140 | 134 | 92 | 90 |
| Queue Length 95th (ft) | 232 | 210 | 130 | 128 |
| Internal Link Dist (ft) | 604 | 194 | 202 | 305 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 541 | 678 | 1047 | 1299 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.72 | 0.59 | 0.49 | 0.49 |

Intersection Summary



## Lanes, Volumes, Timings
### 24: Broad St & Genesee St SB Off-Ramp

02/20/2019

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 118 | 15 | 15 | 106 | 0 | 0 | 0 | 0 | 528 | 42 | 0 |
| Future Volume (vph) | 0 | 118 | 15 | 15 | 106 | 0 | 0 | 0 | 0 | 528 | 42 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 100 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 1 | | 0 | 0 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.91 | 0.91 | 1.00 |
| Frt | | 0.983 | | | | | | | | | | |
| Flt Protected | | | | 0.950 | | | | | | 0.950 | 0.959 | |
| Satd. Flow (prot) | 0 | 3479 | 0 | 1770 | 1863 | 0 | 0 | 0 | 0 | 1610 | 3251 | 0 |
| Flt Permitted | | | | | | | | | | 0.950 | 0.959 | |
| Satd. Flow (perm) | 0 | 3479 | 0 | 1863 | 1863 | 0 | 0 | 0 | 0 | 1610 | 3251 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 16 | | | | | | | | | | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 342 | | | 169 | | | 195 | | | 367 | |
| Travel Time (s) | | 7.8 | | | 3.8 | | | 4.4 | | | 8.3 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 0 | 128 | 16 | 16 | 115 | 0 | 0 | 0 | 0 | 574 | 46 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | 50% | | |
| Lane Group Flow (vph) | 0 | 144 | 0 | 16 | 115 | 0 | 0 | 0 | 0 | 287 | 333 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | | 2 | | 1 | 2 | | | | | 1 | 2 | |
| Detector Template | | Thru | | Left | Thru | | | | | Left | Thru | |
| Leading Detector (ft) | | 100 | | 20 | 100 | | | | | 20 | 100 | |
| Trailing Detector (ft) | | 0 | | 0 | 0 | | | | | 0 | 0 | |
| Detector 1 Position(ft) | | 0 | | 0 | 0 | | | | | 0 | 0 | |
| Detector 1 Size(ft) | | 6 | | 20 | 6 | | | | | 20 | 6 | |
| Detector 1 Type | | Cl+Ex | | Cl+Ex | Cl+Ex | | | | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | | 0.0 | | 0.0 | 0.0 | | | | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | | 0.0 | | 0.0 | 0.0 | | | | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | | 0.0 | | 0.0 | 0.0 | | | | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | | | 0.0 | |
| Turn Type | | NA | | Perm | NA | | | | | Perm | NA | |
| Protected Phases | | 1 | | | 1 | | | | | | 4 | |
| Permitted Phases | | | | 1 | | | | | | 4 | | |

## Lanes, Volumes, Timings
### 24: Broad St & Genesee St SB Off-Ramp
02/20/2019

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Detector Phase | | 1 | | 1 | 1 | | | | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | 4.0 | | 4.0 | 4.0 | | | | | 4.0 | 4.0 | |
| Minimum Split (s) | | 8.0 | | 8.0 | 8.0 | | | | | 10.0 | 10.0 | |
| Total Split (s) | | 8.0 | | 8.0 | 8.0 | | | | | 20.0 | 20.0 | |
| Total Split (%) | | 28.6% | | 28.6% | 28.6% | | | | | 71.4% | 71.4% | |
| Maximum Green (s) | | 4.0 | | 4.0 | 4.0 | | | | | 16.0 | 16.0 | |
| Yellow Time (s) | | 3.5 | | 3.5 | 3.5 | | | | | 2.5 | 2.5 | |
| All-Red Time (s) | | 0.5 | | 0.5 | 0.5 | | | | | 1.5 | 1.5 | |
| Lost Time Adjust (s) | | 0.0 | | 0.0 | 0.0 | | | | | 0.0 | 0.0 | |
| Total Lost Time (s) | | 4.0 | | 4.0 | 4.0 | | | | | 4.0 | 4.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | | 3.0 | | 3.0 | 3.0 | | | | | 2.0 | 2.0 | |
| Recall Mode | | None | | None | None | | | | | None | None | |
| Walk Time (s) | | | | | | | | | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | | | | | | | | | | 14.0 | 14.0 | |
| Pedestrian Calls (#/hr) | | | | | | | | | | 25 | 25 | |
| Act Effct Green (s) | | 4.6 | | 4.6 | 4.6 | | | | | 11.8 | 11.8 | |
| Actuated g/C Ratio | | 0.22 | | 0.22 | 0.22 | | | | | 0.57 | 0.57 | |
| v/c Ratio | | 0.18 | | 0.04 | 0.28 | | | | | 0.31 | 0.18 | |
| Control Delay | | 9.3 | | 10.9 | 13.2 | | | | | 4.1 | 3.0 | |
| Queue Delay | | 0.0 | | 0.0 | 0.0 | | | | | 0.0 | 0.0 | |
| Total Delay | | 9.3 | | 10.9 | 13.2 | | | | | 4.1 | 3.0 | |
| LOS | | A | | B | B | | | | | A | A | |
| Approach Delay | | 9.3 | | | 12.9 | | | | | | 3.5 | |
| Approach LOS | | A | | | B | | | | | | A | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 28 | |
| Actuated Cycle Length: 20.7 | |
| Natural Cycle: 40 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.31 | |
| Intersection Signal Delay: 5.8 | Intersection LOS: A |
| Intersection Capacity Utilization 31.7% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 24: Broad St & Genesee St SB Off-Ramp




## Queues
### 24: Broad St & Genesee St SB Off-Ramp
02/20/2019

| Lane Group | SET | NWL | NWT | SWL | SWT |
|---|---|---|---|---|---|
| Lane Group Flow (vph) | 144 | 16 | 115 | 287 | 333 |
| v/c Ratio | 0.18 | 0.04 | 0.28 | 0.31 | 0.18 |
| Control Delay | 9.3 | 10.9 | 13.2 | 4.1 | 3.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 9.3 | 10.9 | 13.2 | 4.1 | 3.0 |
| Queue Length 50th (ft) | 5 | 1 | 9 | 16 | 8 |
| Queue Length 95th (ft) | 25 | 12 | #57 | 32 | 15 |
| Internal Link Dist (ft) | 262 | | 89 | | 287 |
| Turn Bay Length (ft) | | 100 | | | |
| Base Capacity (vph) | 787 | 414 | 414 | 1315 | 2655 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.18 | 0.04 | 0.28 | 0.22 | 0.13 |

Intersection Summary

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 31 | 5 | 7 | 4 | 387 | 9 | 27 | 440 | 25 |
| Future Volume (vph) | 0 | 0 | 0 | 31 | 5 | 7 | 4 | 387 | 9 | 27 | 440 | 25 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Frt | | | | | 0.978 | | | 0.997 | | | 0.992 | |
| Flt Protected | | | | | 0.966 | | | 0.999 | | | 0.997 | |
| Satd. Flow (prot) | 0 | 0 | 0 | 0 | 1795 | 0 | 0 | 3527 | 0 | 0 | 3508 | 0 |
| Flt Permitted | | | | | 0.966 | | | 0.951 | | | 0.916 | |
| Satd. Flow (perm) | 0 | 0 | 0 | 0 | 1795 | 0 | 0 | 3358 | 0 | 0 | 3223 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | No |
| Satd. Flow (RTOR) | | | | | 8 | | | 5 | | | | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 313 | | | 160 | | | 152 | | | 194 | |
| Travel Time (s) | | 7.1 | | | 3.6 | | | 3.5 | | | 4.4 | |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 2% | 0% | 0% | 2% | 0% |
| Adj. Flow (vph) | 0 | 0 | 0 | 35 | 6 | 8 | 5 | 440 | 10 | 31 | 500 | 28 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 0 | 0 | 49 | 0 | 0 | 455 | 0 | 0 | 559 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | | | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | | | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | | | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | | | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | | | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | | | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | | | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | | | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | | | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | | | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | | | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | | | | 4 | | | 2 | | | 2 | |
| Permitted Phases | | | | 4 | | | 2 | | | 2 | | |
| Detector Phase | | | | 4 | 4 | | 2 | 2 | | 2 | 2 | |
| Switch Phase | | | | | | | | | | | | |





| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Initial (s) | | | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Minimum Split (s) | | | | 23.0 | 23.0 | | 28.0 | 28.0 | | 28.0 | 28.0 | |
| Total Split (s) | | | | 27.0 | 27.0 | | 48.0 | 48.0 | | 48.0 | 48.0 | |
| Total Split (%) | | | | 36.0% | 36.0% | | 64.0% | 64.0% | | 64.0% | 64.0% | |
| Maximum Green (s) | | | | 22.0 | 22.0 | | 43.0 | 43.0 | | 43.0 | 43.0 | |
| Yellow Time (s) | | | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | | | | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Lost Time Adjust (s) | | | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | | | | 5.0 | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | | | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | | | | None | None | | C-Max | C-Max | | C-Max | C-Max | |
| Walk Time (s) | | | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | | | | 11.0 | 11.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | |
| Pedestrian Calls (#/hr) | | | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | | | | 7.3 | | | 64.0 | | | 64.0 | |
| Actuated g/C Ratio | | | | | 0.10 | | | 0.85 | | | 0.85 | |
| v/c Ratio | | | | | 0.27 | | | 0.16 | | | 0.20 | |
| Control Delay | | | | | 30.5 | | | 2.1 | | | 1.1 | |
| Queue Delay | | | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | | | | 30.5 | | | 2.1 | | | 1.1 | |
| LOS | | | | | C | | | A | | | A | |
| Approach Delay | | | | | 30.5 | | | 2.1 | | | 1.1 | |
| Approach LOS | | | | | C | | | A | | | A | |

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 7.5 (10%), Referenced to phase 2:NESW and 6:, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.27
Intersection Signal Delay: 2.9 Intersection LOS: A
Intersection Capacity Utilization 40.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 25: Blandina Street & Genesee Street

## 25: Blandina Street & Genesee Street



| Lane Group | SBT | NET | SWT |
|---|---|---|---|
| Lane Group Flow (vph) | 49 | 455 | 559 |
| v/c Ratio | 0.27 | 0.16 | 0.20 |
| Control Delay | 30.5 | 2.1 | 1.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 |
| Total Delay | 30.5 | 2.1 | 1.1 |
| Queue Length 50th (ft) | 18 | 21 | 11 |
| Queue Length 95th (ft) | 46 | 37 | 20 |
| Internal Link Dist (ft) | 80 | 72 | 114 |
| Turn Bay Length (ft) | | | |
| Base Capacity (vph) | 532 | 2867 | 2751 |
| Starvation Cap Reductn | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.09 | 0.16 | 0.20 |

Intersection Summary





## 26: Genesee St & Bank Place



| Lane Group | NBL | NBR | NET | NER | SWL | SWT | Ø4 |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 411 | 25 | 29 | 391 | |
| Future Volume (vph) | 0 | 0 | 411 | 25 | 29 | 391 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 | |
| Frt | | | 0.992 | | | | |
| Flt Protected | | | | | | 0.997 | |
| Satd. Flow (prot) | 0 | 0 | 3332 | 0 | 0 | 3492 | |
| Flt Permitted | | | | | | 0.900 | |
| Satd. Flow (perm) | 0 | 0 | 3332 | 0 | 0 | 3152 | |
| Right Turn on Red | | Yes | | Yes | | | |
| Satd. Flow (RTOR) | | | 16 | | | | |
| Link Speed (mph) | 30 | | 30 | | | 30 | |
| Link Distance (ft) | 399 | | 483 | | | 150 | |
| Travel Time (s) | 9.1 | | 11.0 | | | 3.4 | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | |
| Heavy Vehicles (%) | 0% | 0% | 2% | 4% | 4% | 3% | |
| Parking (#/hr) | | | 0 | | | | |
| Adj. Flow (vph) | 0 | 0 | 433 | 26 | 31 | 412 | |
| Shared Lane Traffic (%) | | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 459 | 0 | 0 | 443 | |
| Enter Blocked Intersection | No | No | No | No | No | No | |
| Lane Alignment | Left | Right | Left | Right | Left | Left | |
| Median Width(ft) | 0 | | 0 | | | 0 | |
| Link Offset(ft) | 0 | | 0 | | | 0 | |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.07 | 1.00 | 1.00 | 1.00 | |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | | |
| Number of Detectors | | | 2 | | 1 | 2 | |
| Detector Template | | | Thru | | Left | Thru | |
| Leading Detector (ft) | | | 100 | | 20 | 100 | |
| Trailing Detector (ft) | | | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | | | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | | | 6 | | 20 | 6 | |
| Detector 1 Type | | | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | |
| Detector 1 Extend (s) | | | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | | | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | | | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | | 6 | | | 6 | |
| Detector 2 Type | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | |
| Detector 2 Extend (s) | | | 0.0 | | | 0.0 | |
| Turn Type | | | NA | | Perm | NA | |
| Protected Phases | | | 6 | | | 2 | 4 |
| Permitted Phases | | | | | 2 | | |
| Detector Phase | | | 6 | | 2 | 2 | |

| Lane Group | NBL | NBR | NET | NER | SWL | SWT | Ø4 |
|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | |
| Minimum Initial (s) | | | 5.0 | | 5.0 | 5.0 | 15.0 |
| Minimum Split (s) | | | 23.0 | | 27.0 | 27.0 | 22.0 |
| Total Split (s) | | | 88.0 | | 88.0 | 88.0 | 22.0 |
| Total Split (%) | | | 80.0% | | 80.0% | 80.0% | 20% |
| Maximum Green (s) | | | 83.0 | | 83.0 | 83.0 | 18.0 |
| Yellow Time (s) | | | 3.0 | | 3.0 | 3.0 | 3.5 |
| All-Red Time (s) | | | 2.0 | | 2.0 | 2.0 | 0.5 |
| Lost Time Adjust (s) | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | |
| Lead-Lag Optimize? | | | | | | | |
| Vehicle Extension (s) | | | 3.0 | | 3.0 | 3.0 | 3.0 |
| Recall Mode | | | C-Max | | C-Max | C-Max | None |
| Walk Time (s) | | | 5.0 | | 7.0 | 7.0 | 5.0 |
| Flash Dont Walk (s) | | | 11.0 | | 15.0 | 15.0 | 11.0 |
| Pedestrian Calls (#/hr) | | | 0 | | 0 | 0 | 0 |
| Act Effct Green (s) | | | 110.0 | | | 110.0 | |
| Actuated g/C Ratio | | | 1.00 | | | 1.00 | |
| v/c Ratio | | | 0.14 | | | 0.14 | |
| Control Delay | | | 0.1 | | | 0.1 | |
| Queue Delay | | | 0.0 | | | 0.0 | |
| Total Delay | | | 0.1 | | | 0.1 | |
| LOS | | | A | | | A | |
| Approach Delay | | | 0.1 | | | 0.1 | |
| Approach LOS | | | A | | | A | |

**Intersection Summary**

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 12 (11%), Referenced to phase 2:SWTL and 6:NET, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.14
Intersection Signal Delay: 0.1 Intersection LOS: A
Intersection Capacity Utilization 32.1% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 26: Genesee St & Bank Place






| Lane Group | NET | SWT |
|---|---|---|
| Lane Group Flow (vph) | 459 | 443 |
| v/c Ratio | 0.14 | 0.14 |
| Control Delay | 0.1 | 0.1 |
| Queue Delay | 0.0 | 0.0 |
| Total Delay | 0.1 | 0.1 |
| Queue Length 50th (ft) | 0 | 0 |
| Queue Length 95th (ft) | 0 | 0 |
| Internal Link Dist (ft) | 403 | 70 |
| Turn Bay Length (ft) | | |
| Base Capacity (vph) | 3332 | 3152 |
| Starvation Cap Reductn | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 |
| Storage Cap Reductn | 0 | 0 |
| Reduced v/c Ratio | 0.14 | 0.14 |

**Intersection Summary**

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 4 | 270 | 99 | 2 | 401 | 65 | 26 | 407 | 14 | 10 | 371 | 43 |
| Future Volume (vph) | 4 | 270 | 99 | 2 | 401 | 65 | 26 | 407 | 14 | 10 | 371 | 43 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Frt | | 0.960 | | | 0.979 | | | 0.995 | | | 0.985 | |
| Flt Protected | | | | | | | | 0.997 | | | 0.999 | |
| Satd. Flow (prot) | 0 | 3441 | 0 | 0 | 3490 | 0 | 0 | 3341 | 0 | 0 | 3293 | 0 |
| Flt Permitted | | 0.951 | | | 0.954 | | | 0.909 | | | 0.942 | |
| Satd. Flow (perm) | 0 | 3272 | 0 | 0 | 3329 | 0 | 0 | 3046 | 0 | 0 | 3105 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | No | | | Yes |
| Satd. Flow (RTOR) | | 87 | | | 30 | | | | | | 20 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 183 | | | 224 | | | 440 | | | 483 | |
| Travel Time (s) | | 4.2 | | | 5.1 | | | 10.0 | | | 11.0 | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Heavy Vehicles (%) | 0% | 1% | 0% | 0% | 1% | 3% | 0% | 2% | 0% | 10% | 2% | 5% |
| Parking (#/hr) | | | | | | | | 0 | | | 0 | |
| Adj. Flow (vph) | 4 | 297 | 109 | 2 | 441 | 71 | 29 | 447 | 15 | 11 | 408 | 47 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 410 | 0 | 0 | 514 | 0 | 0 | 491 | 0 | 0 | 466 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.07 | 1.00 | 1.00 | 1.07 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | | 20 | 6 | | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Detector Phase | 4 | 4 | | 8 | 8 | | 2 | 2 | | 6 | 6 | |



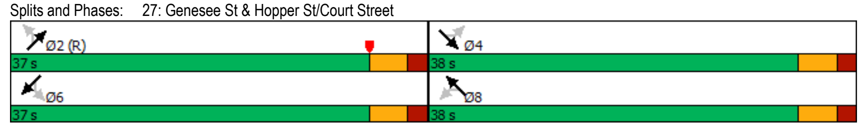


| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Minimum Split (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Total Split (s) | 38.0 | 38.0 | | 38.0 | 38.0 | | 37.0 | 37.0 | | 37.0 | 37.0 | |
| Total Split (%) | 50.7% | 50.7% | | 50.7% | 50.7% | | 49.3% | 49.3% | | 49.3% | 49.3% | |
| Maximum Green (s) | 32.8 | 32.8 | | 32.8 | 32.8 | | 31.8 | 31.8 | | 31.8 | 31.8 | |
| Yellow Time (s) | 3.4 | 3.4 | | 3.4 | 3.4 | | 3.4 | 3.4 | | 3.4 | 3.4 | |
| All-Red Time (s) | 1.8 | 1.8 | | 1.8 | 1.8 | | 1.8 | 1.8 | | 1.8 | 1.8 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.2 | | | 5.2 | | | 5.2 | | | 5.2 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | Max | Max | | Max | Max | | C-Max | C-Max | | Max | Max | |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 15.0 | 15.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 32.8 | | | 32.8 | | | 31.8 | | | 31.8 | |
| Actuated g/C Ratio | | 0.44 | | | 0.44 | | | 0.42 | | | 0.42 | |
| v/c Ratio | | 0.28 | | | 0.35 | | | 0.38 | | | 0.35 | |
| Control Delay | | 11.1 | | | 14.0 | | | 15.9 | | | 14.9 | |
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 11.1 | | | 14.0 | | | 15.9 | | | 14.9 | |
| LOS | | B | | | B | | | B | | | B | |
| Approach Delay | | 11.1 | | | 14.0 | | | 15.9 | | | 14.9 | |
| Approach LOS | | B | | | B | | | B | | | B | |

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 19.8 (26%), Referenced to phase 2:NETL, Start of Yellow
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.38
Intersection Signal Delay: 14.1 Intersection LOS: B
Intersection Capacity Utilization 51.9% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 27: Genesee St & Hopper St/Court Street



## Queues
## 27: Genesee St & Hopper St/Court Street

02/20/2019

| Lane Group | SET | NWT | NET | SWT |
|---|---|---|---|---|
| Lane Group Flow (vph) | 410 | 514 | 491 | 466 |
| v/c Ratio | 0.28 | 0.35 | 0.38 | 0.35 |
| Control Delay | 11.1 | 14.0 | 15.9 | 14.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 11.1 | 14.0 | 15.9 | 14.9 |
| Queue Length 50th (ft) | 47 | 74 | 80 | 71 |
| Queue Length 95th (ft) | 76 | 110 | 116 | 105 |
| Internal Link Dist (ft) | 103 | 144 | 360 | 403 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 1479 | 1472 | 1291 | 1328 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.28 | 0.35 | 0.38 | 0.35 |

Intersection Summary



## Lanes, Volumes, Timings
## 101: State Street & Proposed Parking Lot

02/20/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 21 | 0 | 48 | 56 | 0 | 56 | 13 | 558 | 40 | 57 | 194 | 8 |
| Future Volume (vph) | 21 | 0 | 48 | 56 | 0 | 56 | 13 | 558 | 40 | 57 | 194 | 8 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Frt | | 0.906 | | | 0.932 | | | 0.990 | | | 0.995 | |
| Flt Protected | | 0.985 | | | 0.976 | | | 0.999 | | | 0.989 | |
| Satd. Flow (prot) | 0 | 1662 | 0 | 0 | 1694 | 0 | 0 | 3500 | 0 | 0 | 3483 | 0 |
| Flt Permitted | | 0.985 | | | 0.976 | | | 0.999 | | | 0.989 | |
| Satd. Flow (perm) | 0 | 1662 | 0 | 0 | 1694 | 0 | 0 | 3500 | 0 | 0 | 3483 | 0 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 224 | | | 242 | | | 151 | | | 148 | |
| Travel Time (s) | | 5.1 | | | 5.5 | | | 3.4 | | | 3.4 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 23 | 0 | 52 | 61 | 0 | 61 | 14 | 607 | 43 | 62 | 211 | 9 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 75 | 0 | 0 | 122 | 0 | 0 | 664 | 0 | 0 | 282 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 45.2% ICU Level of Service A

Analysis Period (min) 15

| Intersection | |
|---|---|
| Int Delay, s/veh | 4 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 21 | 0 | 48 | 56 | 0 | 56 | 13 | 558 | 40 | 57 | 194 | 8 |
| Future Vol, veh/h | 21 | 0 | 48 | 56 | 0 | 56 | 13 | 558 | 40 | 57 | 194 | 8 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 23 | 0 | 52 | 61 | 0 | 61 | 14 | 607 | 43 | 62 | 211 | 9 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 672 | 1018 | 110 | 887 | 1001 | 325 | 220 | 0 | 0 | 650 | 0 | 0 |
| Stage 1 | 340 | 340 | - | 657 | 657 | - | - | - | - | - | - | - |
| Stage 2 | 332 | 678 | - | 230 | 344 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 342 | 236 | 922 | 239 | 241 | 671 | 1346 | - | - | 932 | - | - |
| Stage 1 | 648 | 638 | - | 420 | 460 | - | - | - | - | - | - | - |
| Stage 2 | 655 | 450 | - | 752 | 635 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 289 | 215 | 922 | 210 | 219 | 671 | 1346 | - | - | 932 | - | - |
| Mov Cap-2 Maneuver | 289 | 215 | - | 210 | 219 | - | - | - | - | - | - | - |
| Stage 1 | 638 | 590 | - | 413 | 453 | - | - | - | - | - | - | - |
| Stage 2 | 586 | 443 | - | 656 | 587 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 12.5 | 23 | 0.3 | 2.2 |
| HCM LOS | B | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1346 | - | - | 553 | 320 | 932 | - | - |
| HCM Lane V/C Ratio | 0.01 | - | - | 0.136 | 0.38 | 0.066 | - | - |
| HCM Control Delay (s) | 7.7 | 0.1 | - | 12.5 | 23 | 9.1 | 0.2 | - |
| HCM Lane LOS | A | A | - | B | C | A | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.5 | 1.7 | 0.2 | - | - |





| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 249 | 38 | 15 | 29 | 4 |
| Future Volume (vph) | 0 | 249 | 38 | 15 | 29 | 4 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 |
| Frt | | | 0.958 | | 0.985 | |
| Flt Protected | | | | | 0.957 | |
| Satd. Flow (prot) | 0 | 1863 | 3391 | 0 | 1756 | 0 |
| Flt Permitted | | | | | 0.957 | |
| Satd. Flow (perm) | 0 | 1863 | 3391 | 0 | 1756 | 0 |
| Link Speed (mph) | | 30 | 30 | | 30 | |
| Link Distance (ft) | | 193 | 310 | | 219 | |
| Travel Time (s) | | 4.4 | 7.0 | | 5.0 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 0 | 271 | 41 | 16 | 32 | 4 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 271 | 57 | 0 | 36 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 0 | 0 | | 12 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Sign Control | | Free | Free | | Stop | |

Intersection Summary
Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 23.1% ICU Level of Service A
Analysis Period (min) 15

HCM 2010 TWSC
102: Columbia Street & Proposed Parking Lot 02/20/2019

| Intersection | |
|---|---|
| Int Delay, s/veh | 1 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 249 | 38 | 15 | 29 | 4 |
| Future Vol, veh/h | 0 | 249 | 38 | 15 | 29 | 4 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 271 | 41 | 16 | 32 | 4 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 57 | 0 | - | 0 | 320 | 29 |
| Stage 1 | - | - | - | - | 49 | - |
| Stage 2 | - | - | - | - | 271 | - |
| Critical Hdwy | 4.13 | - | - | - | 6.63 | 6.93 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.83 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.43 | - |
| Follow-up Hdwy | 2.219 | - | - | - | 3.519 | 3.319 |
| Pot Cap-1 Maneuver | 1547 | - | - | - | 661 | 1040 |
| Stage 1 | - | - | - | - | 968 | - |
| Stage 2 | - | - | - | - | 774 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1547 | - | - | - | 661 | 1040 |
| Mov Cap-2 Maneuver | - | - | - | - | 661 | - |
| Stage 1 | - | - | - | - | 968 | - |
| Stage 2 | - | - | - | - | 774 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 10.5 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1547 | - | - | - | 692 |
| HCM Lane V/C Ratio | - | - | - | - | 0.052 |
| HCM Control Delay (s) | 0 | - | - | - | 10.5 |
| HCM Lane LOS | A | - | - | - | B |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.2 |



Lanes, Volumes, Timings
103: State Street & Proposed Parking Lot 02/20/2019

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 43 | 16 | 415 | 16 | 8 | 414 |
| Future Volume (vph) | 43 | 16 | 415 | 16 | 8 | 414 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 |
| Frt | 0.964 | | 0.995 | | | |
| Flt Protected | 0.965 | | | | | 0.999 |
| Satd. Flow (prot) | 1733 | 0 | 3522 | 0 | 0 | 1861 |
| Flt Permitted | 0.965 | | | | | 0.999 |
| Satd. Flow (perm) | 1733 | 0 | 3522 | 0 | 0 | 1861 |
| Link Speed (mph) | 30 | | 30 | | | 30 |
| Link Distance (ft) | 215 | | 626 | | | 317 |
| Travel Time (s) | 4.9 | | 14.2 | | | 7.2 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 47 | 17 | 451 | 17 | 9 | 450 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 64 | 0 | 468 | 0 | 0 | 459 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 12 | | | 12 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Sign Control | Stop | | Free | | | Free |

Intersection Summary
Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 38.2% ICU Level of Service A
Analysis Period (min) 15

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.3 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 43 | 16 | 415 | 16 | 8 | 414 |
| Future Vol, veh/h | 43 | 16 | 415 | 16 | 8 | 414 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 47 | 17 | 451 | 17 | 9 | 450 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 928 | 234 | 0 | 0 | 468 | 0 |
| Stage 1 | 460 | - | - | - | - | - |
| Stage 2 | 468 | - | - | - | - | - |
| Critical Hdwy | 6.63 | 6.93 | - | - | 4.13 | - |
| Critical Hdwy Stg 1 | 5.83 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.43 | - | - | - | - | - |
| Follow-up Hdwy | 3.519 | 3.319 | - | - | 2.219 | - |
| Pot Cap-1 Maneuver | 282 | 769 | - | - | 1092 | - |
| Stage 1 | 603 | - | - | - | - | - |
| Stage 2 | 629 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 279 | 769 | - | - | 1092 | - |
| Mov Cap-2 Maneuver | 279 | - | - | - | - | - |
| Stage 1 | 596 | - | - | - | - | - |
| Stage 2 | 629 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 18.2 | 0 | 0.2 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | SBL | SBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 337 | 1092 | - |
| HCM Lane V/C Ratio | - | - | 0.19 | 0.008 | - |
| HCM Control Delay (s) | - | - | 18.2 | 8.3 | 0 |
| HCM Lane LOS | - | - | C | A | A |
| HCM 95th %tile Q(veh) | - | - | 0.7 | 0 | - |





| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 241 | 125 | 53 | 0 | 0 | 20 |
| Future Volume (vph) | 241 | 125 | 53 | 0 | 0 | 20 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.954 | | | | 0.865 | |
| Flt Protected | 0.968 | | | 0.950 | | |
| Satd. Flow (prot) | 1720 | 0 | 0 | 1770 | 1611 | 0 |
| Flt Permitted | 0.968 | | | 0.950 | | |
| Satd. Flow (perm) | 1720 | 0 | 0 | 1770 | 1611 | 0 |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 124 | | | 173 | 218 | |
| Travel Time (s) | 2.8 | | | 3.9 | 5.0 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 262 | 136 | 58 | 0 | 0 | 22 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 398 | 0 | 0 | 58 | 22 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 12 | | | 0 | 0 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |
| Intersection Capacity Utilization 37.3% | ICU Level of Service A |
| Analysis Period (min) 15 | |

HCM 2010 TWSC
104: Cornelia St & Proposed Parking Lot 02/20/2019

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 11 | | | | | |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 241 | 125 | 53 | 0 | 0 | 20 |
| Future Vol, veh/h | 241 | 125 | 53 | 0 | 0 | 20 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 262 | 136 | 58 | 0 | 0 | 22 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 127 | 11 | 22 | 0 | - | 0 |
| Stage 1 | 11 | - | - | - | - | - |
| Stage 2 | 116 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 868 | 1070 | 1593 | - | - | - |
| Stage 1 | 1012 | - | - | - | - | - |
| Stage 2 | 909 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 837 | 1070 | 1593 | - | - | - |
| Mov Cap-2 Maneuver | 837 | - | - | - | - | - |
| Stage 1 | 976 | - | - | - | - | - |
| Stage 2 | 909 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 12.1 | 7.3 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1593 | - | 904 | - | - |
| HCM Lane V/C Ratio | 0.036 | - | 0.44 | - | - |
| HCM Control Delay (s) | 7.3 | 0 | 12.1 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 2.3 | - | - |



Lanes, Volumes, Timings
105: Cornelia Street & Proposed Parking Lot 02/20/2019

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 51 | 7 | 0 | 29 | 85 | 16 |
| Future Volume (vph) | 51 | 7 | 0 | 29 | 85 | 16 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 |
| Frt | 0.983 | | | | 0.977 | |
| Flt Protected | 0.958 | | | | | |
| Satd. Flow (prot) | 1754 | 0 | 0 | 1863 | 3458 | 0 |
| Flt Permitted | 0.958 | | | | | |
| Satd. Flow (perm) | 1754 | 0 | 0 | 1863 | 3458 | 0 |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 237 | | | 715 | 222 | |
| Travel Time (s) | 5.4 | | | 16.3 | 5.0 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 55 | 8 | 0 | 32 | 92 | 17 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 63 | 0 | 0 | 32 | 109 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 12 | | | 0 | 0 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Sign Control | Stop | | | Free | Free | |

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 13.3% ICU Level of Service A
Analysis Period (min) 15

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 2.9 | | | | | |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 51 | 7 | 0 | 29 | 85 | 16 |
| Future Vol, veh/h | 51 | 7 | 0 | 29 | 85 | 16 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 55 | 8 | 0 | 32 | 92 | 17 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 133 | 55 | 109 | 0 | - | 0 |
| Stage 1 | 101 | - | - | - | - | - |
| Stage 2 | 32 | - | - | - | - | - |
| Critical Hdwy | 6.63 | 6.93 | 4.13 | - | - | - |
| Critical Hdwy Stg 1 | 5.83 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.43 | - | - | - | - | - |
| Follow-up Hdwy | 3.519 | 3.319 | 2.219 | - | - | - |
| Pot Cap-1 Maneuver | 854 | 1001 | 1480 | - | - | - |
| Stage 1 | 912 | - | - | - | - | - |
| Stage 2 | 990 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 854 | 1001 | 1480 | - | - | - |
| Mov Cap-2 Maneuver | 854 | - | - | - | - | - |
| Stage 1 | 912 | - | - | - | - | - |
| Stage 2 | 990 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 9.5 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1480 | - | 869 | - | - |
| HCM Lane V/C Ratio | - | - | 0.073 | - | - |
| HCM Control Delay (s) | 0 | - | 9.5 | - | - |
| HCM Lane LOS | A | - | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.2 | - | - |

# Mitigation Synchro Reports

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 414 | 17 | 214 | 0 | 0 | 0 | 0 | 530 | 130 | 159 | 45 | 0 |
| Future Volume (vph) | 414 | 17 | 214 | 0 | 0 | 0 | 0 | 530 | 130 | 159 | 45 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 8 | 8 | 8 | 12 | 12 | 12 | 12 | 12 | 12 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | 0.850 | | | | | | 0.850 | | | |
| Flt Protected | | 0.954 | | | | | | | | | 0.962 | |
| Satd. Flow (prot) | 0 | 1778 | 1615 | 0 | 0 | 0 | 0 | 1881 | 1583 | 0 | 1759 | 0 |
| Flt Permitted | | 0.954 | | | | | | | | | 0.350 | |
| Satd. Flow (perm) | 0 | 1778 | 1615 | 0 | 0 | 0 | 0 | 1881 | 1583 | 0 | 640 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 233 | | | | | | 141 | | | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 161 | | | 214 | | | 148 | | | 273 | |
| Travel Time (s) | | 3.7 | | | 4.9 | | | 3.4 | | | 6.2 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 2% | 0% | 0% | 0% | 0% | 0% | 0% | 1% | 2% | 5% | 0% | 0% |
| Adj. Flow (vph) | 450 | 18 | 233 | 0 | 0 | 0 | 0 | 576 | 141 | 173 | 49 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 468 | 233 | 0 | 0 | 0 | 0 | 576 | 141 | 0 | 222 | 0 |
| Turn Type | Perm | NA | Perm | | | | | NA | Perm | Perm | NA | |
| Protected Phases | | 4 | | | | | | 2 | | | 6 | |
| Permitted Phases | 4 | | 4 | | | | | | 2 | 6 | | |
| Detector Phase | 4 | 4 | 4 | | | | | 2 | 2 | 6 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | 4.0 | | | | | 4.0 | 4.0 | 4.0 | 4.0 | |
| Minimum Split (s) | 9.0 | 9.0 | 9.0 | | | | | 9.0 | 9.0 | 9.0 | 9.0 | |
| Total Split (s) | 35.0 | 35.0 | 35.0 | | | | | 40.0 | 40.0 | 40.0 | 40.0 | |
| Total Split (%) | 46.7% | 46.7% | 46.7% | | | | | 53.3% | 53.3% | 53.3% | 53.3% | |
| Maximum Green (s) | 30.0 | 30.0 | 30.0 | | | | | 35.0 | 35.0 | 35.0 | 35.0 | |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | | | | | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.5 | 1.5 | 1.5 | | | | | 1.5 | 1.5 | 1.5 | 1.5 | |
| Lost Time Adjust (s) | | 0.0 | 0.0 | | | | | 0.0 | 0.0 | | 0.0 | |
| Total Lost Time (s) | | 5.0 | 5.0 | | | | | 5.0 | 5.0 | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | | | | | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | None | None | | | | | C-Max | C-Max | C-Max | C-Max | |
| Walk Time (s) | 5.0 | 5.0 | 5.0 | | | | | | | | | |
| Flash Dont Walk (s) | 15.0 | 15.0 | 15.0 | | | | | | | | | |
| Pedestrian Calls (#/hr) | 0 | 0 | 0 | | | | | | | | | |
| Act Effct Green (s) | | 25.2 | 25.2 | | | | | 39.8 | 39.8 | | 39.8 | |
| Actuated g/C Ratio | | 0.34 | 0.34 | | | | | 0.53 | 0.53 | | 0.53 | |
| v/c Ratio | | 0.79 | 0.33 | | | | | 0.58 | 0.16 | | 0.65 | |
| Control Delay | | 32.0 | 3.7 | | | | | 13.3 | 2.0 | | 27.0 | |
| Queue Delay | | 0.0 | 0.0 | | | | | 0.7 | 0.0 | | 0.0 | |
| Total Delay | | 32.0 | 3.7 | | | | | 14.1 | 2.0 | | 27.0 | |
| LOS | | C | A | | | | | B | A | | C | |



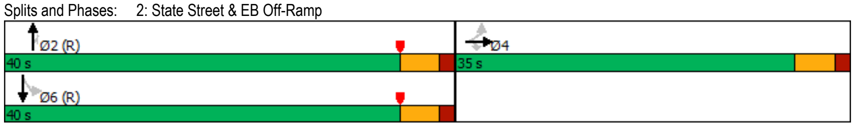


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach Delay | | 22.6 | | | | | | 11.7 | | | 27.0 | |
| Approach LOS | | C | | | | | | B | | | C | |
| Queue Length 50th (ft) | | 188 | 0 | | | | | 151 | 7 | | 72 | |
| Queue Length 95th (ft) | | 273 | 39 | | | | | 301 | 13 | | #201 | |
| Internal Link Dist (ft) | | 81 | | | 134 | | | 68 | | | 193 | |
| Turn Bay Length (ft) | | | | | | | | | | | | |
| Base Capacity (vph) | | 711 | 785 | | | | | 999 | 906 | | 339 | |
| Starvation Cap Reductn | | 0 | 0 | | | | | 169 | 0 | | 0 | |
| Spillback Cap Reductn | | 0 | 0 | | | | | 0 | 0 | | 0 | |
| Storage Cap Reductn | | 0 | 0 | | | | | 0 | 0 | | 0 | |
| Reduced v/c Ratio | | 0.66 | 0.30 | | | | | 0.69 | 0.16 | | 0.65 | |

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 18.4 Intersection LOS: B
Intersection Capacity Utilization 75.4% ICU Level of Service D
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: State Street & EB Off-Ramp



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 61 | 0 | 20 | 3 | 1 | 2 | 95 | 550 | 1 | 5 | 284 | 17 |
| Future Volume (vph) | 61 | 0 | 20 | 3 | 1 | 2 | 95 | 550 | 1 | 5 | 284 | 17 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 123 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.967 | | | 0.955 | | | | | | 0.992 | |
| Flt Protected | | 0.963 | | | 0.976 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1769 | 0 | 0 | 1736 | 0 | 1805 | 1881 | 0 | 1770 | 1885 | 0 |
| Flt Permitted | | 0.775 | | | 0.882 | | 0.557 | | | 0.398 | | |
| Satd. Flow (perm) | 0 | 1424 | 0 | 0 | 1569 | 0 | 1058 | 1881 | 0 | 741 | 1885 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 29 | | | 2 | | | | | | 5 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 187 | | | 199 | | | 329 | | | 151 | |
| Travel Time (s) | | 4.3 | | | 4.5 | | | 7.5 | | | 3.4 | |
| Peak Hour Factor | 0.89 | 0.92 | 0.89 | 0.92 | 0.92 | 0.92 | 0.89 | 0.89 | 0.92 | 0.92 | 0.89 | 0.89 |
| Heavy Vehicles (%) | 0% | 2% | 0% | 2% | 2% | 2% | 0% | 1% | 2% | 2% | 0% | 0% |
| Adj. Flow (vph) | 69 | 0 | 22 | 3 | 1 | 2 | 107 | 618 | 1 | 5 | 319 | 19 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 91 | 0 | 0 | 6 | 0 | 107 | 619 | 0 | 5 | 338 | 0 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 4 | | | 2 | | | 2 | |
| Permitted Phases | 4 | | | 4 | | | 2 | | | 2 | | |
| Detector Phase | 4 | 4 | | 4 | 4 | | 2 | 2 | | 2 | 2 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Minimum Split (s) | 27.0 | 27.0 | | 27.0 | 27.0 | | 27.0 | 27.0 | | 27.0 | 27.0 | |
| Total Split (s) | 35.0 | 35.0 | | 35.0 | 35.0 | | 40.0 | 40.0 | | 40.0 | 40.0 | |
| Total Split (%) | 46.7% | 46.7% | | 46.7% | 46.7% | | 53.3% | 53.3% | | 53.3% | 53.3% | |
| Maximum Green (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 35.0 | 35.0 | | 35.0 | 35.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | None | None | | None | None | | C-Max | C-Max | | C-Max | C-Max | |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 15.0 | 15.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 8.8 | | | 8.8 | | 59.3 | 59.3 | | 59.3 | 59.3 | |
| Actuated g/C Ratio | | 0.12 | | | 0.12 | | 0.79 | 0.79 | | 0.79 | 0.79 | |
| v/c Ratio | | 0.47 | | | 0.03 | | 0.13 | 0.42 | | 0.01 | 0.23 | |
| Control Delay | | 29.9 | | | 24.0 | | 2.2 | 2.7 | | 3.8 | 3.8 | |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.6 | | 0.0 | 0.6 | |



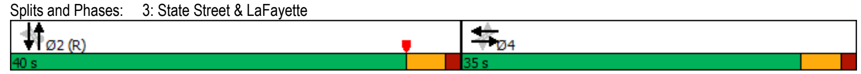


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Delay | | 29.9 | | | 24.0 | | 2.2 | 3.3 | | 3.8 | 4.4 | |
| LOS | | C | | | C | | A | A | | A | A | |
| Approach Delay | | 29.9 | | | 24.0 | | | 3.1 | | | 4.4 | |
| Approach LOS | | C | | | C | | | A | | | A | |
| Queue Length 50th (ft) | | 27 | | | 2 | | 5 | 32 | | 1 | 33 | |
| Queue Length 95th (ft) | | 66 | | | 12 | | m13 | m92 | | m3 | 100 | |
| Internal Link Dist (ft) | | 107 | | | 119 | | | 249 | | | 71 | |
| Turn Bay Length (ft) | | | | | | | 123 | | | | | |
| Base Capacity (vph) | | 587 | | | 628 | | 836 | 1487 | | 586 | 1491 | |
| Starvation Cap Reductn | | 0 | | | 0 | | 0 | 485 | | 0 | 786 | |
| Spillback Cap Reductn | | 7 | | | 0 | | 0 | 65 | | 0 | 5 | |
| Storage Cap Reductn | | 0 | | | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | | 0.16 | | | 0.01 | | 0.13 | 0.62 | | 0.01 | 0.48 | |

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.47
Intersection Signal Delay: 5.7 Intersection LOS: A
Intersection Capacity Utilization 51.8% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: State Street & LaFayette



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 72 | 151 | 55 | 94 | 180 | 237 | 142 | 342 | 66 | 58 | 273 | 42 |
| Future Volume (vph) | 72 | 151 | 55 | 94 | 180 | 237 | 142 | 342 | 66 | 58 | 273 | 42 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 0 | | 0 | 114 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.973 | | | 0.937 | | | 0.976 | | | 0.980 | |
| Flt Protected | | 0.987 | | | 0.991 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1590 | 0 | 0 | 1550 | 0 | 1770 | 1818 | 0 | 1805 | 1846 | 0 |
| Flt Permitted | | 0.721 | | | 0.864 | | 0.440 | | | 0.331 | | |
| Satd. Flow (perm) | 0 | 1162 | 0 | 0 | 1351 | 0 | 820 | 1818 | 0 | 629 | 1846 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 20 | | | 72 | | | 17 | | | 13 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 310 | | | 708 | | | 317 | | | 329 | |
| Travel Time (s) | | 7.0 | | | 16.1 | | | 7.2 | | | 7.5 | |
| Peak Hour Factor | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 |
| Heavy Vehicles (%) | 4% | 3% | 3% | 0% | 7% | 0% | 2% | 2% | 2% | 0% | 1% | 0% |
| Parking (#/hr) | | 0 | | | 0 | | | | | | | |
| Adj. Flow (vph) | 86 | 180 | 65 | 112 | 214 | 282 | 169 | 407 | 79 | 69 | 325 | 50 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 331 | 0 | 0 | 608 | 0 | 169 | 486 | 0 | 69 | 375 | 0 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 4 | | | 2 | | | 2 | |
| Permitted Phases | 4 | | | 4 | | | 2 | | | 2 | | |
| Detector Phase | 4 | 4 | | 4 | 4 | | 2 | 2 | | 2 | 2 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Minimum Split (s) | 9.0 | 9.0 | | 9.0 | 9.0 | | 9.0 | 9.0 | | 9.0 | 9.0 | |
| Total Split (s) | 37.0 | 37.0 | | 37.0 | 37.0 | | 38.0 | 38.0 | | 38.0 | 38.0 | |
| Total Split (%) | 49.3% | 49.3% | | 49.3% | 49.3% | | 50.7% | 50.7% | | 50.7% | 50.7% | |
| Maximum Green (s) | 32.0 | 32.0 | | 32.0 | 32.0 | | 33.0 | 33.0 | | 33.0 | 33.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | None | None | | None | None | | C-Max | C-Max | | C-Max | C-Max | |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 15.0 | 15.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | | 15.0 | 15.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 32.0 | | | 32.0 | | 33.0 | 33.0 | | 33.0 | 33.0 | |
| Actuated g/C Ratio | | 0.43 | | | 0.43 | | 0.44 | 0.44 | | 0.44 | 0.44 | |
| v/c Ratio | | 0.65 | | | 0.99 | | 0.47 | 0.60 | | 0.25 | 0.46 | |
| Control Delay | | 23.4 | | | 54.5 | | 20.2 | 19.2 | | 14.6 | 14.9 | |



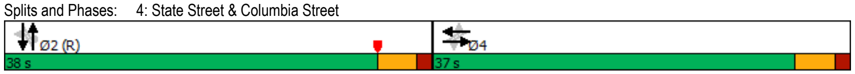


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.8 | |
| Total Delay | | 23.4 | | | 54.5 | | 20.2 | 19.2 | | 14.6 | 15.7 | |
| LOS | | C | | | D | | C | B | | B | B | |
| Approach Delay | | 23.4 | | | 54.5 | | | 19.5 | | | 15.5 | |
| Approach LOS | | C | | | D | | | B | | | B | |
| Queue Length 50th (ft) | | 110 | | | 246 | | 53 | 159 | | 19 | 107 | |
| Queue Length 95th (ft) | | 180 | | | #414 | | 98 | 227 | | 48 | 177 | |
| Internal Link Dist (ft) | | 230 | | | 628 | | | 237 | | | 249 | |
| Turn Bay Length (ft) | | | | | | | | | | 114 | | |
| Base Capacity (vph) | | 507 | | | 617 | | 360 | 809 | | 276 | 819 | |
| Starvation Cap Reductn | | 0 | | | 0 | | 0 | 0 | | 0 | 207 | |
| Spillback Cap Reductn | | 0 | | | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | | 0 | | | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | | 0.65 | | | 0.99 | | 0.47 | 0.60 | | 0.25 | 0.61 | |

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 5 (7%), Referenced to phase 2:NBSB and 6:, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.99
Intersection Signal Delay: 29.7 Intersection LOS: C
Intersection Capacity Utilization 73.1% ICU Level of Service D
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: State Street & Columbia Street



# NYSDOT Analysis
# 2019 MVHS IHC Future No-Build
# AM Synchro Reports

| Lane Group | EBT | EBR | WBT | WBR | NBL | NBT | NBR | SBT | SBR2 | NER | NER2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 1078 | 54 | 999 | 5 | 8 | 6 | 5 | 4 | 75 | 288 | 5 |
| Future Volume (vph) | 1078 | 54 | 999 | 5 | 8 | 6 | 5 | 4 | 75 | 288 | 5 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | | 0 | | 0 | 0 | | 0 | | | 0 | |
| Storage Lanes | | 0 | | 0 | 0 | | 0 | | | 1 | |
| Taper Length (ft) | | | | | 25 | | | | | | |
| Lane Util. Factor | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.993 | | 0.999 | | | 0.963 | | 0.871 | | 0.865 | |
| Flt Protected | | | | | | 0.980 | | | | | |
| Satd. Flow (prot) | 3482 | 0 | 3502 | 0 | 0 | 1793 | 0 | 1538 | 0 | 1596 | 0 |
| Flt Permitted | | | | | | 0.828 | | | | | |
| Satd. Flow (perm) | 3482 | 0 | 3502 | 0 | 0 | 1515 | 0 | 1538 | 0 | 1596 | 0 |
| Right Turn on Red | | | | Yes | | | No | | Yes | | No |
| Satd. Flow (RTOR) | | | 1 | | | | | 85 | | | |
| Link Speed (mph) | 30 | | 30 | | | 30 | | 30 | | | |
| Link Distance (ft) | 284 | | 287 | | | 376 | | 334 | | | |
| Travel Time (s) | 6.5 | | 6.5 | | | 8.5 | | 7.6 | | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 3% | 2% | 3% | 0% | 0% | 0% | 0% | 0% | 8% | 3% | 2% |
| Adj. Flow (vph) | 1198 | 60 | 1110 | 6 | 9 | 7 | 6 | 4 | 83 | 320 | 6 |
| Shared Lane Traffic (%) | | | | | | | | | | | |
| Lane Group Flow (vph) | 1258 | 0 | 1116 | 0 | 0 | 22 | 0 | 87 | 0 | 326 | 0 |
| Turn Type | NA | | NA | | Perm | NA | | NA | | Prot | |
| Protected Phases | 2 | | 6 | | | 4 | | 8 | | 1 | |
| Permitted Phases | | | | | 4 | | | | | | |
| Detector Phase | 2 | | 6 | | 4 | 4 | | 8 | | 1 | |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 12.0 | | 12.0 | | 6.0 | 6.0 | | 6.0 | | 6.0 | |
| Minimum Split (s) | 17.0 | | 17.0 | | 11.0 | 11.0 | | 11.0 | | 11.0 | |
| Total Split (s) | 49.0 | | 64.0 | | 26.0 | 26.0 | | 26.0 | | 15.0 | |
| Total Split (%) | 54.4% | | 71.1% | | 28.9% | 28.9% | | 28.9% | | 16.7% | |
| Maximum Green (s) | 44.0 | | 59.0 | | 21.0 | 21.0 | | 21.0 | | 10.0 | |
| Yellow Time (s) | 3.5 | | 3.5 | | 3.5 | 3.5 | | 3.5 | | 3.5 | |
| All-Red Time (s) | 1.5 | | 1.5 | | 1.5 | 1.5 | | 1.5 | | 1.5 | |
| Lost Time Adjust (s) | 0.0 | | 0.0 | | | 0.0 | | 0.0 | | 0.0 | |
| Total Lost Time (s) | 5.0 | | 5.0 | | | 5.0 | | 5.0 | | 5.0 | |
| Lead/Lag | Lag | | | | | | | | | Lead | |
| Lead-Lag Optimize? | | | | | | | | | | | |
| Vehicle Extension (s) | 2.0 | | 2.0 | | 2.0 | 2.0 | | 2.0 | | 2.0 | |
| Recall Mode | C-Min | | C-Min | | None | None | | None | | None | |
| Act Effct Green (s) | 39.9 | | 76.5 | | | 6.7 | | 6.7 | | 30.6 | |
| Actuated g/C Ratio | 0.44 | | 0.85 | | | 0.07 | | 0.07 | | 0.34 | |
| v/c Ratio | 0.82 | | 0.38 | | | 0.19 | | 0.45 | | 0.60 | |
| Control Delay | 26.5 | | 3.9 | | | 42.5 | | 17.5 | | 33.8 | |
| Queue Delay | 0.0 | | 0.0 | | | 0.0 | | 0.0 | | 0.0 | |
| Total Delay | 26.5 | | 3.9 | | | 42.5 | | 17.5 | | 33.8 | |
| LOS | C | | A | | | D | | B | | C | |
| Approach Delay | 26.5 | | 3.9 | | | 42.5 | | 17.5 | | | |





| Lane Group | EBT | EBR | WBT | WBR | NBL | NBT | NBR | SBT | SBR2 | NER | NER2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach LOS | C | | A | | | D | | B | | | |
| Queue Length 50th (ft) | 310 | | 16 | | | 12 | | 1 | | 159 | |
| Queue Length 95th (ft) | 369 | | 199 | | | 35 | | 44 | | #322 | |
| Internal Link Dist (ft) | 204 | | 207 | | | 296 | | 254 | | | |
| Turn Bay Length (ft) | | | | | | | | | | | |
| Base Capacity (vph) | 1702 | | 2975 | | | 353 | | 424 | | 542 | |
| Starvation Cap Reductn | 0 | | 0 | | | 0 | | 0 | | 0 | |
| Spillback Cap Reductn | 0 | | 0 | | | 0 | | 0 | | 0 | |
| Storage Cap Reductn | 0 | | 0 | | | 0 | | 0 | | 0 | |
| Reduced v/c Ratio | 0.74 | | 0.38 | | | 0.06 | | 0.21 | | 0.60 | |

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 18.2 Intersection LOS: B
Intersection Capacity Utilization 69.9% ICU Level of Service C
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Cornelia St & 5S

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 48 | 1269 | 54 | 117 | 1030 | 5 | 26 | 27 | 30 | 39 | 40 | 5 |
| Future Volume (vph) | 48 | 1269 | 54 | 117 | 1030 | 5 | 26 | 27 | 30 | 39 | 40 | 5 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 100 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.994 | | | 0.999 | | | 0.921 | | | 0.982 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 3518 | 0 | 1770 | 3536 | 0 | 1770 | 1716 | 0 | 1770 | 1829 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.412 | | | 0.716 | | |
| Satd. Flow (perm) | 1770 | 3518 | 0 | 1770 | 3536 | 0 | 767 | 1716 | 0 | 1334 | 1829 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 6 | | | 1 | | | 33 | | | 6 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 412 | | | 306 | | | 481 | | | 508 | |
| Travel Time (s) | | 9.4 | | | 7.0 | | | 10.9 | | | 11.5 | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Adj. Flow (vph) | 53 | 1410 | 60 | 130 | 1144 | 6 | 29 | 30 | 33 | 43 | 44 | 6 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 53 | 1470 | 0 | 130 | 1150 | 0 | 29 | 63 | 0 | 43 | 50 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | pm+pt | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | | 4 | |
| Permitted Phases | | | | | | | 8 | | | 4 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 3 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 15.0 | | 6.0 | 15.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 11.0 | 20.0 | | 11.0 | 20.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Total Split (s) | 11.0 | 48.0 | | 11.0 | 48.0 | | 16.0 | 31.0 | | 15.0 | 15.0 | |
| Total Split (%) | 12.2% | 53.3% | | 12.2% | 53.3% | | 17.8% | 34.4% | | 16.7% | 16.7% | |
| Maximum Green (s) | 6.0 | 43.0 | | 6.0 | 43.0 | | 11.0 | 26.0 | | 10.0 | 10.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | | | Lag | Lag | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 2.0 | 2.0 | | 3.0 | 3.0 | | 3.0 | 2.0 | | 2.0 | 2.0 | |
| Recall Mode | None | C-Min | | None | C-Min | | None | None | | None | None | |
| Act Effct Green (s) | 7.1 | 51.9 | | 12.4 | 62.7 | | 12.9 | 12.9 | | 7.8 | 7.8 | |
| Actuated g/C Ratio | 0.08 | 0.58 | | 0.14 | 0.70 | | 0.14 | 0.14 | | 0.09 | 0.09 | |
| v/c Ratio | 0.38 | 0.72 | | 0.53 | 0.47 | | 0.16 | 0.23 | | 0.38 | 0.31 | |
| Control Delay | 50.5 | 9.2 | | 39.5 | 14.9 | | 30.9 | 18.6 | | 47.5 | 39.2 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 50.5 | 9.2 | | 39.5 | 14.9 | | 30.9 | 18.6 | | 47.5 | 39.2 | |
| LOS | D | A | | D | B | | C | B | | D | D | |
| Approach Delay | | 10.7 | | | 17.4 | | | 22.5 | | | 43.0 | |
| Approach LOS | | B | | | B | | | C | | | D | |





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Queue Length 50th (ft) | 33 | 117 | | 42 | 308 | | 16 | 16 | | 24 | 24 | |
| Queue Length 95th (ft) | m42 | 158 | | m#136 | 432 | | 33 | 43 | | 55 | 57 | |
| Internal Link Dist (ft) | | 332 | | | 226 | | | 401 | | | 428 | |
| Turn Bay Length (ft) | 100 | | | | | | | | | | | |
| Base Capacity (vph) | 139 | 2032 | | 243 | 2462 | | 255 | 519 | | 150 | 211 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.38 | 0.72 | | 0.53 | 0.47 | | 0.11 | 0.12 | | 0.29 | 0.24 | |

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 8 (9%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 14.9 Intersection LOS: B
Intersection Capacity Utilization 64.6% ICU Level of Service C
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Broadway & 5S

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 77 | 1124 | 46 | 136 | 1016 | 4 | 45 | 188 | 51 | 40 | 434 | 23 |
| Future Volume (vph) | 77 | 1124 | 46 | 136 | 1016 | 4 | 45 | 188 | 51 | 40 | 434 | 23 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | 150 | 150 | | 0 | 150 | | 0 | 150 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 |
| Frt | | 0.994 | | | 0.999 | | | 0.968 | | | 0.992 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 3553 | 0 | 1770 | 3501 | 0 | 1770 | 1662 | 0 | 1770 | 3479 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.295 | | | 0.386 | | |
| Satd. Flow (perm) | 1770 | 3553 | 0 | 1770 | 3501 | 0 | 550 | 1662 | 0 | 719 | 3479 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 5 | | | 1 | | | 16 | | | 6 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 392 | | | 731 | | | 166 | | | 307 | |
| Travel Time (s) | | 8.9 | | | 16.6 | | | 3.8 | | | 7.0 | |
| Peak Hour Factor | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 |
| Heavy Vehicles (%) | 2% | 1% | 1% | 2% | 3% | 2% | 2% | 13% | 2% | 2% | 3% | 2% |
| Adj. Flow (vph) | 90 | 1307 | 53 | 158 | 1181 | 5 | 52 | 219 | 59 | 47 | 505 | 27 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 90 | 1360 | 0 | 158 | 1186 | 0 | 52 | 278 | 0 | 47 | 532 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | | | | | | | 8 | | | 4 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 8 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 8.0 | 15.0 | | 8.0 | 15.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 14.0 | 46.0 | | 14.0 | 46.0 | | 42.0 | 42.0 | | 42.0 | 42.0 | |
| Total Split (s) | 14.0 | 42.0 | | 12.0 | 40.0 | | 36.0 | 36.0 | | 36.0 | 36.0 | |
| Total Split (%) | 15.6% | 46.7% | | 13.3% | 44.4% | | 40.0% | 40.0% | | 40.0% | 40.0% | |
| Maximum Green (s) | 8.0 | 36.0 | | 6.0 | 34.0 | | 30.0 | 30.0 | | 30.0 | 30.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 1.0 | | 3.0 | 3.0 | | 2.5 | 2.5 | | 2.5 | 2.5 | |
| Recall Mode | None | C-Min | | None | C-Min | | None | None | | None | None | |
| Walk Time (s) | | | | | 7.0 | | | | | | | |
| Flash Dont Walk (s) | | | | | 33.0 | | | | | | | |
| Pedestrian Calls (#/hr) | | | | | 0 | | | | | | | |
| Act Effct Green (s) | 9.8 | 36.5 | | 15.7 | 45.2 | | 19.8 | 19.8 | | 19.8 | 19.8 | |
| Actuated g/C Ratio | 0.11 | 0.41 | | 0.17 | 0.50 | | 0.22 | 0.22 | | 0.22 | 0.22 | |
| v/c Ratio | 0.47 | 0.94 | | 0.51 | 0.67 | | 0.43 | 0.74 | | 0.30 | 0.69 | |
| Control Delay | 54.6 | 30.9 | | 43.7 | 22.2 | | 39.9 | 41.9 | | 32.4 | 36.2 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |



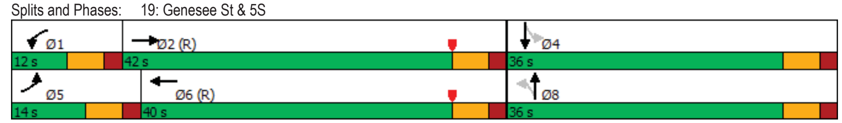


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Delay | 54.6 | 30.9 | | 43.7 | 22.2 | | 39.9 | 41.9 | | 32.4 | 36.2 | |
| LOS | D | C | | D | C | | D | D | | C | D | |
| Approach Delay | | 32.3 | | | 24.7 | | | 41.6 | | | 35.9 | |
| Approach LOS | | C | | | C | | | D | | | D | |
| Queue Length 50th (ft) | 44 | 422 | | 81 | 271 | | 26 | 140 | | 23 | 146 | |
| Queue Length 95th (ft) | m64 | #513 | | #194 | #393 | | 54 | 191 | | 46 | 168 | |
| Internal Link Dist (ft) | | 312 | | | 651 | | | 86 | | | 227 | |
| Turn Bay Length (ft) | 150 | | | 150 | | | 150 | | | 150 | | |
| Base Capacity (vph) | 192 | 1443 | | 308 | 1758 | | 183 | 564 | | 239 | 1163 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.47 | 0.94 | | 0.51 | 0.67 | | 0.28 | 0.49 | | 0.20 | 0.46 | |

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 38 (42%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 105
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 31.0 Intersection LOS: C
Intersection Capacity Utilization 78.1% ICU Level of Service D
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 19: Genesee St & 5S



# NYSDOT Analysis
# 2019 MVHS IHC Future No-Build
# PM Synchro Reports

| Lane Group | EBT | EBR | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR2 | NER | NER2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 1028 | 14 | 1334 | 4 | 48 | 4 | 11 | 1 | 8 | 193 | 274 | 4 |
| Future Volume (vph) | 1028 | 14 | 1334 | 4 | 48 | 4 | 11 | 1 | 8 | 193 | 274 | 4 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | | 0 | | 0 | 0 | | 0 | 50 | | | 0 | |
| Storage Lanes | | 0 | | 0 | 0 | | 0 | 0 | | | 1 | |
| Taper Length (ft) | | | | | 25 | | | 25 | | | | |
| Lane Util. Factor | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.998 | | | | | 0.977 | | | 0.871 | | 0.865 | |
| Flt Protected | | | | | | 0.963 | | | | | | |
| Satd. Flow (prot) | 3493 | 0 | 3539 | 0 | 0 | 1788 | 0 | 0 | 1624 | 0 | 1593 | 0 |
| Flt Permitted | | | | | | 0.406 | | | 0.999 | | | |
| Satd. Flow (perm) | 3493 | 0 | 3539 | 0 | 0 | 754 | 0 | 0 | 1622 | 0 | 1593 | 0 |
| Right Turn on Red | | | | Yes | | | No | | | Yes | | No |
| Satd. Flow (RTOR) | | | | | | | | | 85 | | | |
| Link Speed (mph) | 30 | | 30 | | | 30 | | | 30 | | | |
| Link Distance (ft) | 284 | | 287 | | | 376 | | | 334 | | | |
| Travel Time (s) | 6.5 | | 6.5 | | | 8.5 | | | 7.6 | | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 3% | 14% | 2% | 0% | 0% | 0% | 0% | 0% | 0% | 2% | 3% | 14% |
| Adj. Flow (vph) | 1142 | 16 | 1482 | 4 | 53 | 4 | 12 | 1 | 9 | 214 | 304 | 4 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 1158 | 0 | 1486 | 0 | 0 | 69 | 0 | 0 | 224 | 0 | 308 | 0 |
| Turn Type | NA | | NA | | Perm | NA | | Perm | NA | | Prot | |
| Protected Phases | 2 | | 6 | | | 4 | | | 8 | | 1 | |
| Permitted Phases | | | | | 4 | | | 8 | | | | |
| Detector Phase | 2 | | 6 | | 4 | 4 | | 8 | 8 | | 1 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 12.0 | | 12.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | |
| Minimum Split (s) | 27.0 | | 21.0 | | 37.0 | 37.0 | | 21.0 | 21.0 | | 21.0 | |
| Total Split (s) | 32.0 | | 53.0 | | 37.0 | 37.0 | | 37.0 | 37.0 | | 21.0 | |
| Total Split (%) | 35.6% | | 58.9% | | 41.1% | 41.1% | | 41.1% | 41.1% | | 23.3% | |
| Maximum Green (s) | 27.0 | | 48.0 | | 32.0 | 32.0 | | 32.0 | 32.0 | | 16.0 | |
| Yellow Time (s) | 3.5 | | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | |
| All-Red Time (s) | 1.5 | | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | |
| Lost Time Adjust (s) | 0.0 | | 0.0 | | | 0.0 | | | 0.0 | | 0.0 | |
| Total Lost Time (s) | 5.0 | | 5.0 | | | 5.0 | | | 5.0 | | 5.0 | |
| Lead/Lag | Lag | | | | | | | | | | Lead | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 2.0 | | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | |
| Recall Mode | C-Min | | C-Min | | None | None | | None | None | | None | |
| Walk Time (s) | 7.0 | | 5.0 | | 7.0 | 7.0 | | 5.0 | 5.0 | | | |
| Flash Dont Walk (s) | 15.0 | | 11.0 | | 25.0 | 25.0 | | 11.0 | 11.0 | | | |
| Pedestrian Calls (#/hr) | 10 | | 10 | | 10 | 10 | | 10 | 10 | | | |
| Act Effct Green (s) | 35.7 | | 64.8 | | | 15.2 | | | 15.2 | | 24.1 | |
| Actuated g/C Ratio | 0.40 | | 0.72 | | | 0.17 | | | 0.17 | | 0.27 | |
| v/c Ratio | 0.83 | | 0.58 | | | 0.54 | | | 0.65 | | 0.72 | |
| Control Delay | 32.9 | | 10.0 | | | 46.8 | | | 28.6 | | 43.3 | |
| Queue Delay | 0.0 | | 0.0 | | | 0.0 | | | 0.0 | | 0.0 | |



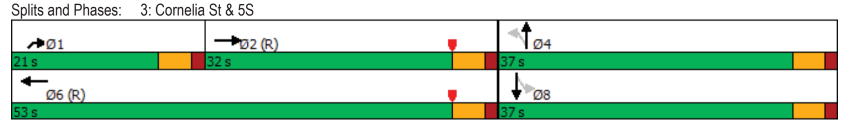


| Lane Group | EBT | EBR | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR2 | NER | NER2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Delay | 32.9 | | 10.0 | | | 46.8 | | | 28.6 | | 43.3 | |
| LOS | C | | B | | | D | | | C | | D | |
| Approach Delay | 32.9 | | 10.0 | | | 46.8 | | | 28.6 | | | |
| Approach LOS | C | | B | | | D | | | C | | | |
| Queue Length 50th (ft) | 298 | | 111 | | | 38 | | | 76 | | 155 | |
| Queue Length 95th (ft) | #526 | | 291 | | | 62 | | | 113 | | #359 | |
| Internal Link Dist (ft) | 204 | | 207 | | | 296 | | | 254 | | | |
| Turn Bay Length (ft) | | | | | | | | | | | | |
| Base Capacity (vph) | 1387 | | 2549 | | | 268 | | | 631 | | 426 | |
| Starvation Cap Reductn | 0 | | 0 | | | 0 | | | 0 | | 0 | |
| Spillback Cap Reductn | 0 | | 0 | | | 0 | | | 0 | | 0 | |
| Storage Cap Reductn | 0 | | 0 | | | 0 | | | 0 | | 0 | |
| Reduced v/c Ratio | 0.83 | | 0.58 | | | 0.26 | | | 0.35 | | 0.72 | |

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 23.4 Intersection LOS: C
Intersection Capacity Utilization 80.2% ICU Level of Service D
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Cornelia St & 5S



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 34 | 1244 | 36 | 65 | 1084 | 5 | 143 | 18 | 49 | 36 | 30 | 5 |
| Future Volume (vph) | 34 | 1244 | 36 | 65 | 1084 | 5 | 143 | 18 | 49 | 36 | 30 | 5 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 100 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.996 | | | 0.999 | | | 0.891 | | | 0.977 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 3525 | 0 | 1770 | 3536 | 0 | 1770 | 1660 | 0 | 1770 | 1820 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.393 | | | 0.709 | | |
| Satd. Flow (perm) | 1770 | 3525 | 0 | 1770 | 3536 | 0 | 732 | 1660 | 0 | 1321 | 1820 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 4 | | | 1 | | | 54 | | | 6 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 412 | | | 306 | | | 481 | | | 508 | |
| Travel Time (s) | | 9.4 | | | 7.0 | | | 10.9 | | | 11.5 | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Adj. Flow (vph) | 38 | 1382 | 40 | 72 | 1204 | 6 | 159 | 20 | 54 | 40 | 33 | 6 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 38 | 1422 | 0 | 72 | 1210 | 0 | 159 | 74 | 0 | 40 | 39 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | pm+pt | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | | 4 | |
| Permitted Phases | | | | | | | 8 | | | 4 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 3 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 15.0 | | 6.0 | 15.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 11.0 | 27.0 | | 11.0 | 27.0 | | 21.0 | 36.0 | | 36.0 | 36.0 | |
| Total Split (s) | 12.0 | 47.0 | | 12.0 | 47.0 | | 18.0 | 31.0 | | 13.0 | 13.0 | |
| Total Split (%) | 13.3% | 52.2% | | 13.3% | 52.2% | | 20.0% | 34.4% | | 14.4% | 14.4% | |
| Maximum Green (s) | 7.0 | 42.0 | | 7.0 | 42.0 | | 13.0 | 26.0 | | 8.0 | 8.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | | | Lag | Lag | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 2.0 | 2.0 | | 3.0 | 3.0 | | 3.0 | 2.0 | | 2.0 | 2.0 | |
| Recall Mode | None | C-Min | | None | C-Min | | None | None | | None | None | |
| Act Effct Green (s) | 6.5 | 48.9 | | 7.3 | 51.9 | | 21.0 | 21.0 | | 7.0 | 7.0 | |
| Actuated g/C Ratio | 0.07 | 0.54 | | 0.08 | 0.58 | | 0.23 | 0.23 | | 0.08 | 0.08 | |
| v/c Ratio | 0.30 | 0.74 | | 0.50 | 0.59 | | 0.53 | 0.17 | | 0.39 | 0.27 | |
| Control Delay | 50.0 | 15.0 | | 38.7 | 20.8 | | 34.1 | 11.2 | | 50.4 | 38.8 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 50.0 | 15.0 | | 38.7 | 20.8 | | 34.1 | 11.2 | | 50.4 | 38.8 | |
| LOS | D | B | | D | C | | C | B | | D | D | |
| Approach Delay | | 15.9 | | | 21.8 | | | 26.8 | | | 44.6 | |
| Approach LOS | | B | | | C | | | C | | | D | |



Lanes, Volumes, Timings
6: Broadway & 5S 03/04/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Queue Length 50th (ft) | 22 | 140 | | 33 | 368 | | 73 | 8 | | 22 | 18 | |
| Queue Length 95th (ft) | m30 | 308 | | m62 | 444 | | 123 | 40 | | 54 | 49 | |
| Internal Link Dist (ft) | | 332 | | | 226 | | | 401 | | | 428 | |
| Turn Bay Length (ft) | 100 | | | | | | | | | | | |
| Base Capacity (vph) | 137 | 1916 | | 147 | 2040 | | 329 | 517 | | 117 | 167 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.28 | 0.74 | | 0.49 | 0.59 | | 0.48 | 0.14 | | 0.34 | 0.23 | |

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 5 (6%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 20.0 Intersection LOS: B
Intersection Capacity Utilization 67.6% ICU Level of Service C
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Broadway & 5S

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 97 | 1157 | 20 | 78 | 905 | 14 | 104 | 429 | 107 | 30 | 332 | 18 |
| Future Volume (vph) | 97 | 1157 | 20 | 78 | 905 | 14 | 104 | 429 | 107 | 30 | 332 | 18 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | 150 | 150 | | 0 | 150 | | 0 | 150 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 |
| Frt | | 0.997 | | | 0.998 | | | 0.970 | | | 0.992 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 3462 | 0 | 1770 | 3498 | 0 | 1770 | 1807 | 0 | 1770 | 3526 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.511 | | | 0.137 | | |
| Satd. Flow (perm) | 1770 | 3462 | 0 | 1770 | 3498 | 0 | 952 | 1807 | 0 | 255 | 3526 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 2 | | | 2 | | | 15 | | | 7 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 392 | | | 731 | | | 166 | | | 307 | |
| Travel Time (s) | | 8.9 | | | 16.6 | | | 3.8 | | | 7.0 | |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Heavy Vehicles (%) | 2% | 4% | 2% | 2% | 3% | 2% | 2% | 2% | 2% | 2% | 1% | 12% |
| Adj. Flow (vph) | 101 | 1205 | 21 | 81 | 943 | 15 | 108 | 447 | 111 | 31 | 346 | 19 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 101 | 1226 | 0 | 81 | 958 | 0 | 108 | 558 | 0 | 31 | 365 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | | | | | | | 8 | | | 4 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 8 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 15.0 | | 4.0 | 15.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 8.0 | 46.0 | | 8.0 | 46.0 | | 42.0 | 42.0 | | 42.0 | 42.0 | |
| Total Split (s) | 12.0 | 42.0 | | 12.0 | 42.0 | | 36.0 | 36.0 | | 36.0 | 36.0 | |
| Total Split (%) | 13.3% | 46.7% | | 13.3% | 46.7% | | 40.0% | 40.0% | | 40.0% | 40.0% | |
| Maximum Green (s) | 8.0 | 36.0 | | 8.0 | 36.0 | | 30.0 | 30.0 | | 30.0 | 30.0 | |
| Yellow Time (s) | 3.5 | 4.0 | | 3.5 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 0.5 | 2.0 | | 0.5 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.0 | 6.0 | | 4.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | | | Yes | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 1.0 | | 3.0 | 3.0 | | 2.5 | 2.5 | | 2.5 | 2.5 | |
| Recall Mode | None | C-Min | | None | C-Min | | None | None | | None | None | |
| Act Effct Green (s) | 8.0 | 39.2 | | 7.6 | 39.0 | | 29.2 | 29.2 | | 29.2 | 29.2 | |
| Actuated g/C Ratio | 0.09 | 0.44 | | 0.08 | 0.43 | | 0.32 | 0.32 | | 0.32 | 0.32 | |
| v/c Ratio | 0.65 | 0.81 | | 0.55 | 0.63 | | 0.35 | 0.94 | | 0.37 | 0.32 | |
| Control Delay | 64.6 | 17.4 | | 53.6 | 23.3 | | 26.6 | 53.9 | | 38.2 | 23.1 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 64.6 | 17.4 | | 53.6 | 23.3 | | 26.6 | 53.9 | | 38.2 | 23.1 | |
| LOS | E | B | | D | C | | C | D | | D | C | |
| Approach Delay | | 21.0 | | | 25.7 | | | 49.5 | | | 24.3 | |



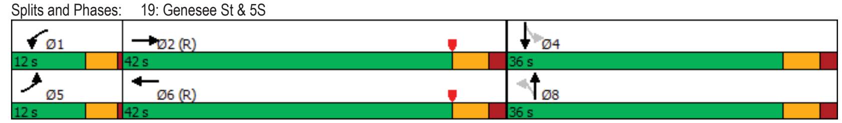


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach LOS | | C | | | C | | | D | | | C | |
| Queue Length 50th (ft) | 50 | 218 | | 45 | 231 | | 46 | 294 | | 13 | 78 | |
| Queue Length 95th (ft) | m72 | #481 | | #92 | 301 | | 91 | #496 | | 44 | 115 | |
| Internal Link Dist (ft) | | 312 | | | 651 | | | 86 | | | 227 | |
| Turn Bay Length (ft) | 150 | | | 150 | | | 150 | | | 150 | | |
| Base Capacity (vph) | 161 | 1516 | | 157 | 1531 | | 319 | 616 | | 85 | 1188 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.63 | 0.81 | | 0.52 | 0.63 | | 0.34 | 0.91 | | 0.36 | 0.31 | |

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 35 (39%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 28.3 Intersection LOS: C
Intersection Capacity Utilization 89.4% ICU Level of Service E
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 19: Genesee St & 5S



# NYSDOT Analysis
# MVHS IHC Future Build
# AM Synchro Reports

| Lane Group | EBT | EBR | WBT | WBR | NBL | NBT | NBR | SBT | SBR2 | NER |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (vph) | 1078 | 41 | 1008 | 1 | 37 | 0 | 17 | 7 | 85 | 292 |
| Future Volume (vph) | 1078 | 41 | 1008 | 1 | 37 | 0 | 17 | 7 | 85 | 292 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | | 0 | | 0 | 0 | | 0 | | | 0 |
| Storage Lanes | | 0 | | 0 | 0 | | 0 | | | 1 |
| Taper Length (ft) | | | | | 25 | | | | | |
| Lane Util. Factor | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.994 | | | | | 0.957 | | 0.876 | | 0.865 |
| Flt Protected | | | | | | 0.967 | | | | |
| Satd. Flow (prot) | 3485 | 0 | 3505 | 0 | 0 | 1758 | 0 | 1550 | 0 | 1596 |
| Flt Permitted | | | | | | 0.733 | | | | |
| Satd. Flow (perm) | 3485 | 0 | 3505 | 0 | 0 | 1333 | 0 | 1550 | 0 | 1596 |
| Right Turn on Red | | | | Yes | | | No | | Yes | |
| Satd. Flow (RTOR) | | | | | | | | 94 | | |
| Link Speed (mph) | 30 | | 30 | | | 30 | | 30 | | |
| Link Distance (ft) | 284 | | 699 | | | 262 | | 334 | | |
| Travel Time (s) | 6.5 | | 15.9 | | | 6.0 | | 7.6 | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 3% | 2% | 3% | 0% | 0% | 0% | 0% | 0% | 8% | 3% |
| Adj. Flow (vph) | 1198 | 46 | 1120 | 1 | 41 | 0 | 19 | 8 | 94 | 324 |
| Shared Lane Traffic (%) | | | | | | | | | | |
| Lane Group Flow (vph) | 1244 | 0 | 1121 | 0 | 0 | 60 | 0 | 102 | 0 | 324 |
| Turn Type | NA | | NA | | Perm | NA | | NA | | Prot |
| Protected Phases | 2 | | 6 | | | 4 | | 8 | | 1 |
| Permitted Phases | | | | | 4 | | | | | |
| Detector Phase | 2 | | 6 | | 4 | 4 | | 8 | | 1 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 12.0 | | 12.0 | | 6.0 | 6.0 | | 6.0 | | 6.0 |
| Minimum Split (s) | 17.0 | | 17.0 | | 11.0 | 11.0 | | 11.0 | | 11.0 |
| Total Split (s) | 49.0 | | 64.0 | | 26.0 | 26.0 | | 26.0 | | 15.0 |
| Total Split (%) | 54.4% | | 71.1% | | 28.9% | 28.9% | | 28.9% | | 16.7% |
| Maximum Green (s) | 44.0 | | 59.0 | | 21.0 | 21.0 | | 21.0 | | 10.0 |
| Yellow Time (s) | 3.5 | | 3.5 | | 3.5 | 3.5 | | 3.5 | | 3.5 |
| All-Red Time (s) | 1.5 | | 1.5 | | 1.5 | 1.5 | | 1.5 | | 1.5 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | | | 0.0 | | 0.0 | | 0.0 |
| Total Lost Time (s) | 5.0 | | 5.0 | | | 5.0 | | 5.0 | | 5.0 |
| Lead/Lag | Lag | | | | | | | | | Lead |
| Lead-Lag Optimize? | | | | | | | | | | |
| Vehicle Extension (s) | 2.0 | | 2.0 | | 2.0 | 2.0 | | 2.0 | | 2.0 |
| Recall Mode | C-Min | | C-Min | | None | None | | None | | None |
| Act Effct Green (s) | 39.3 | | 74.6 | | | 8.6 | | 8.6 | | 29.3 |
| Actuated g/C Ratio | 0.44 | | 0.83 | | | 0.10 | | 0.10 | | 0.33 |
| v/c Ratio | 0.82 | | 0.39 | | | 0.48 | | 0.44 | | 0.62 |
| Control Delay | 26.9 | | 6.0 | | | 50.3 | | 15.9 | | 36.5 |
| Queue Delay | 0.0 | | 0.0 | | | 0.0 | | 0.0 | | 0.0 |
| Total Delay | 26.9 | | 6.0 | | | 50.3 | | 15.9 | | 36.5 |
| LOS | C | | A | | | D | | B | | D |
| Approach Delay | 26.9 | | 6.0 | | | 50.3 | | 15.9 | | |





| Lane Group | EBT | EBR | WBT | WBR | NBL | NBT | NBR | SBT | SBR2 | NER |
|---|---|---|---|---|---|---|---|---|---|---|
| Approach LOS | C | | A | | | D | | B | | |
| Queue Length 50th (ft) | 310 | | 122 | | | 33 | | 4 | | 162 |
| Queue Length 95th (ft) | 363 | | 199 | | | 70 | | 49 | | #351 |
| Internal Link Dist (ft) | 204 | | 619 | | | 182 | | 254 | | |
| Turn Bay Length (ft) | | | | | | | | | | |
| Base Capacity (vph) | 1703 | | 2906 | | | 311 | | 433 | | 520 |
| Starvation Cap Reductn | 0 | | 0 | | | 0 | | 0 | | 0 |
| Spillback Cap Reductn | 0 | | 0 | | | 0 | | 0 | | 0 |
| Storage Cap Reductn | 0 | | 0 | | | 0 | | 0 | | 0 |
| Reduced v/c Ratio | 0.73 | | 0.39 | | | 0.19 | | 0.24 | | 0.62 |

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 19.9 Intersection LOS: B
Intersection Capacity Utilization 71.4% ICU Level of Service C
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Cornelia Street/Cornelia St & 5S

## Lanes, Volumes, Timings
### 10: Broadway & 5S

03/04/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 68 | 1293 | 103 | 217 | 1030 | 0 | 69 | 27 | 28 | 32 | 69 | 17 |
| Future Volume (vph) | 68 | 1293 | 103 | 217 | 1030 | 0 | 69 | 27 | 28 | 32 | 69 | 17 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 257 | | 0 | 253 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.989 | | | | | | 0.924 | | | 0.970 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 3500 | 0 | 1770 | 3539 | 0 | 1770 | 1721 | 0 | 1770 | 1807 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.410 | | | 0.717 | | |
| Satd. Flow (perm) | 1770 | 3500 | 0 | 1770 | 3539 | 0 | 764 | 1721 | 0 | 1336 | 1807 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 12 | | | | | | 31 | | | 11 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 699 | | | 306 | | | 481 | | | 508 | |
| Travel Time (s) | | 15.9 | | | 7.0 | | | 10.9 | | | 11.5 | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Adj. Flow (vph) | 76 | 1437 | 114 | 241 | 1144 | 0 | 77 | 30 | 31 | 36 | 77 | 19 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 76 | 1551 | 0 | 241 | 1144 | 0 | 77 | 61 | 0 | 36 | 96 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | pm+pt | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | | 4 | |
| Permitted Phases | | | | | | | 8 | | | 4 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 3 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 15.0 | | 6.0 | 15.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 11.0 | 20.0 | | 11.0 | 20.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Total Split (s) | 11.0 | 48.0 | | 11.0 | 48.0 | | 16.0 | 31.0 | | 15.0 | 15.0 | |
| Total Split (%) | 12.2% | 53.3% | | 12.2% | 53.3% | | 17.8% | 34.4% | | 16.7% | 16.7% | |
| Maximum Green (s) | 6.0 | 43.0 | | 6.0 | 43.0 | | 11.0 | 26.0 | | 10.0 | 10.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | | | Lag | Lag | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 2.0 | 2.0 | | 3.0 | 3.0 | | 3.0 | 2.0 | | 2.0 | 2.0 | |
| Recall Mode | None | C-Min | | None | C-Min | | None | None | | None | None | |
| Act Effct Green (s) | 7.0 | 42.5 | | 15.0 | 53.7 | | 19.7 | 19.7 | | 8.4 | 8.4 | |
| Actuated g/C Ratio | 0.08 | 0.47 | | 0.17 | 0.60 | | 0.22 | 0.22 | | 0.09 | 0.09 | |
| v/c Ratio | 0.55 | 0.93 | | 0.82 | 0.54 | | 0.30 | 0.15 | | 0.29 | 0.54 | |
| Control Delay | 59.4 | 19.2 | | 59.6 | 25.9 | | 28.8 | 15.5 | | 43.6 | 45.7 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 59.4 | 19.2 | | 59.6 | 25.9 | | 28.8 | 15.5 | | 43.6 | 45.7 | |
| LOS | E | B | | E | C | | C | B | | D | D | |
| Approach Delay | | 21.0 | | | 31.7 | | | 22.9 | | | 45.1 | |
| Approach LOS | | C | | | C | | | C | | | D | |



## Lanes, Volumes, Timings
### 10: Broadway & 5S

03/04/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Queue Length 50th (ft) | 42 | 137 | | ~174 | 327 | | 35 | 13 | | 19 | 47 | |
| Queue Length 95th (ft) | m64 | #564 | | #358 | 424 | | 67 | 41 | | 48 | 95 | |
| Internal Link Dist (ft) | | 619 | | | 226 | | | 401 | | | 428 | |
| Turn Bay Length (ft) | 257 | | | 253 | | | | | | | | |
| Base Capacity (vph) | 137 | 1678 | | 295 | 2113 | | 298 | 519 | | 149 | 211 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.55 | 0.92 | | 0.82 | 0.54 | | 0.26 | 0.12 | | 0.24 | 0.45 | |

**Intersection Summary**

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 8 (9%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 26.6 — Intersection LOS: C
Intersection Capacity Utilization 74.0% — ICU Level of Service D
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 10: Broadway & 5S

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 5 | 1158 | 170 | 164 | 1097 | 7 | 45 | 178 | 51 | 41 | 506 | 35 |
| Future Volume (vph) | 5 | 1158 | 170 | 164 | 1097 | 7 | 45 | 178 | 51 | 41 | 506 | 35 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | 150 | 150 | | 0 | 150 | | 0 | 150 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 |
| Frt | | 0.981 | | | 0.999 | | | 0.967 | | | 0.990 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 3506 | 0 | 1770 | 3502 | 0 | 1770 | 1662 | 0 | 1770 | 3472 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.239 | | | 0.440 | | |
| Satd. Flow (perm) | 1770 | 3506 | 0 | 1770 | 3502 | 0 | 445 | 1662 | 0 | 820 | 3472 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 21 | | | 1 | | | 17 | | | 8 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 392 | | | 616 | | | 464 | | | 307 | |
| Travel Time (s) | | 8.9 | | | 14.0 | | | 10.5 | | | 7.0 | |
| Peak Hour Factor | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 |
| Heavy Vehicles (%) | 2% | 1% | 1% | 2% | 3% | 2% | 2% | 13% | 2% | 2% | 3% | 2% |
| Adj. Flow (vph) | 6 | 1347 | 198 | 191 | 1276 | 8 | 52 | 207 | 59 | 48 | 588 | 41 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 6 | 1545 | 0 | 191 | 1284 | 0 | 52 | 266 | 0 | 48 | 629 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | | | | | | | 8 | | | 4 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 8 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 8.0 | 15.0 | | 8.0 | 15.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 14.0 | 46.0 | | 14.0 | 46.0 | | 42.0 | 42.0 | | 42.0 | 42.0 | |
| Total Split (s) | 14.0 | 42.0 | | 12.0 | 40.0 | | 36.0 | 36.0 | | 36.0 | 36.0 | |
| Total Split (%) | 15.6% | 46.7% | | 13.3% | 44.4% | | 40.0% | 40.0% | | 40.0% | 40.0% | |
| Maximum Green (s) | 8.0 | 36.0 | | 6.0 | 34.0 | | 30.0 | 30.0 | | 30.0 | 30.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 1.0 | | 3.0 | 3.0 | | 2.5 | 2.5 | | 2.5 | 2.5 | |
| Recall Mode | None | C-Min | | None | C-Min | | None | None | | None | None | |
| Walk Time (s) | | 7.0 | | | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | | 33.0 | | | 33.0 | | 29.0 | 29.0 | | 29.0 | 29.0 | |
| Pedestrian Calls (#/hr) | | 0 | | | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | 8.0 | 36.0 | | 13.9 | 53.1 | | 22.1 | 22.1 | | 22.1 | 22.1 | |
| Actuated g/C Ratio | 0.09 | 0.40 | | 0.15 | 0.59 | | 0.25 | 0.25 | | 0.25 | 0.25 | |
| v/c Ratio | 0.04 | 1.09 | | 0.70 | 0.62 | | 0.48 | 0.63 | | 0.24 | 0.73 | |
| Control Delay | 53.8 | 66.4 | | 54.4 | 16.2 | | 42.9 | 34.7 | | 28.5 | 35.8 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |



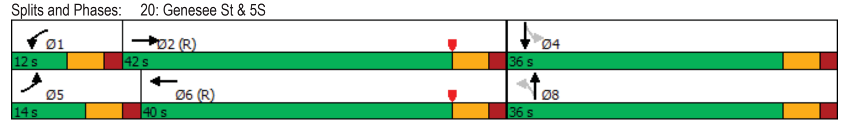


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Delay | 53.8 | 66.4 | | 54.4 | 16.2 | | 42.9 | 34.7 | | 28.5 | 35.8 | |
| LOS | D | E | | D | B | | D | C | | C | D | |
| Approach Delay | | 66.4 | | | 21.1 | | | 36.1 | | | 35.3 | |
| Approach LOS | | E | | | C | | | D | | | D | |
| Queue Length 50th (ft) | 4 | ~540 | | 104 | 206 | | 25 | 127 | | 22 | 172 | |
| Queue Length 95th (ft) | m5 | m#624 | | #253 | #440 | | 56 | 178 | | 46 | 197 | |
| Internal Link Dist (ft) | | 312 | | | 536 | | | 384 | | | 227 | |
| Turn Bay Length (ft) | 150 | | | 150 | | | 150 | | | 150 | | |
| Base Capacity (vph) | 157 | 1415 | | 273 | 2067 | | 148 | 565 | | 273 | 1162 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.04 | 1.09 | | 0.70 | 0.62 | | 0.35 | 0.47 | | 0.18 | 0.54 | |

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 38 (42%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.09
Intersection Signal Delay: 42.2 Intersection LOS: D
Intersection Capacity Utilization 86.6% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 20: Genesee St & 5S



# NYSDOT Analysis
# MVHS IHC Future Build
# PM Synchro Reports

| Lane Group | EBT | EBR | WBT | WBR | NBL | NBT | NBR | SBT | SBR2 | NER | NER2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 1028 | 17 | 1364 | 2 | 192 | 0 | 49 | 3 | 186 | 235 | 2 |
| Future Volume (vph) | 1028 | 17 | 1364 | 2 | 192 | 0 | 49 | 3 | 186 | 235 | 2 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | | 0 | | 0 | 0 | | 0 | | | 0 | |
| Storage Lanes | | 0 | | 0 | 0 | | 0 | | | 1 | |
| Taper Length (ft) | | | | | 25 | | | | | | |
| Lane Util. Factor | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.998 | | | | | 0.973 | | 0.867 | | 0.865 | |
| Flt Protected | | | | | | 0.962 | | | | | |
| Satd. Flow (prot) | 3492 | 0 | 3539 | 0 | 0 | 1778 | 0 | 1615 | 0 | 1594 | 0 |
| Flt Permitted | | | | | | 0.551 | | | | | |
| Satd. Flow (perm) | 3492 | 0 | 3539 | 0 | 0 | 1019 | 0 | 1615 | 0 | 1594 | 0 |
| Right Turn on Red | | | | Yes | | | No | | Yes | | No |
| Satd. Flow (RTOR) | | | | | | | | 85 | | | |
| Link Speed (mph) | 30 | | 30 | | | 30 | | 30 | | | |
| Link Distance (ft) | 365 | | 699 | | | 218 | | 244 | | | |
| Travel Time (s) | 8.3 | | 15.9 | | | 5.0 | | 5.5 | | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 3% | 14% | 2% | 0% | 0% | 0% | 0% | 0% | 2% | 3% | 14% |
| Adj. Flow (vph) | 1142 | 19 | 1516 | 2 | 213 | 0 | 54 | 3 | 207 | 261 | 2 |
| Shared Lane Traffic (%) | | | | | | | | | | | |
| Lane Group Flow (vph) | 1161 | 0 | 1518 | 0 | 0 | 267 | 0 | 210 | 0 | 263 | 0 |
| Turn Type | NA | | NA | | Perm | NA | | NA | | Prot | |
| Protected Phases | 2 | | 6 | | | 4 | | 8 | | 1 | |
| Permitted Phases | | | | | 4 | | | | | | |
| Detector Phase | 2 | | 6 | | 4 | 4 | | 8 | | 1 | |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 12.0 | | 12.0 | | 6.0 | 6.0 | | 6.0 | | 6.0 | |
| Minimum Split (s) | 17.0 | | 17.0 | | 11.0 | 11.0 | | 11.0 | | 11.0 | |
| Total Split (s) | 32.0 | | 53.0 | | 37.0 | 37.0 | | 37.0 | | 21.0 | |
| Total Split (%) | 35.6% | | 58.9% | | 41.1% | 41.1% | | 41.1% | | 23.3% | |
| Maximum Green (s) | 27.0 | | 48.0 | | 32.0 | 32.0 | | 32.0 | | 16.0 | |
| Yellow Time (s) | 3.5 | | 3.5 | | 3.5 | 3.5 | | 3.5 | | 3.5 | |
| All-Red Time (s) | 1.5 | | 1.5 | | 1.5 | 1.5 | | 1.5 | | 1.5 | |
| Lost Time Adjust (s) | 0.0 | | 0.0 | | | 0.0 | | 0.0 | | 0.0 | |
| Total Lost Time (s) | 5.0 | | 5.0 | | | 5.0 | | 5.0 | | 5.0 | |
| Lead/Lag | Lag | | | | | | | | | Lead | |
| Lead-Lag Optimize? | | | | | | | | | | | |
| Vehicle Extension (s) | 2.0 | | 2.0 | | 2.0 | 2.0 | | 2.0 | | 2.0 | |
| Recall Mode | C-Min | | C-Min | | None | None | | None | | None | |
| Act Effct Green (s) | 31.5 | | 54.2 | | | 25.8 | | 25.8 | | 17.7 | |
| Actuated g/C Ratio | 0.35 | | 0.60 | | | 0.29 | | 0.29 | | 0.20 | |
| v/c Ratio | 0.95 | | 0.71 | | | 0.91 | | 0.40 | | 0.84 | |
| Control Delay | 48.0 | | 13.5 | | | 65.6 | | 16.0 | | 59.9 | |
| Queue Delay | 0.0 | | 0.0 | | | 0.0 | | 0.0 | | 0.0 | |
| Total Delay | 48.0 | | 13.5 | | | 65.6 | | 16.0 | | 59.9 | |
| LOS | D | | B | | | E | | B | | E | |
| Approach Delay | 48.0 | | 13.5 | | | 65.6 | | 16.0 | | | |



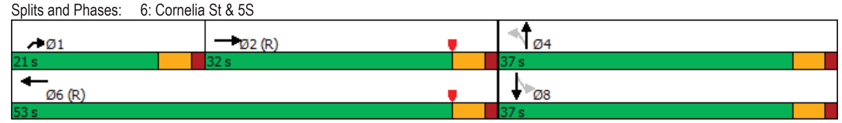


| Lane Group | EBT | EBR | WBT | WBR | NBL | NBT | NBR | SBT | SBR2 | NER | NER2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach LOS | D | | B | | | E | | B | | | |
| Queue Length 50th (ft) | ~401 | | 210 | | | 143 | | 54 | | 138 | |
| Queue Length 95th (ft) | #528 | | 307 | | | #253 | | 104 | | #296 | |
| Internal Link Dist (ft) | 285 | | 619 | | | 138 | | 164 | | | |
| Turn Bay Length (ft) | | | | | | | | | | | |
| Base Capacity (vph) | 1222 | | 2131 | | | 362 | | 629 | | 316 | |
| Starvation Cap Reductn | 0 | | 0 | | | 0 | | 0 | | 0 | |
| Spillback Cap Reductn | 0 | | 0 | | | 0 | | 0 | | 0 | |
| Storage Cap Reductn | 0 | | 0 | | | 0 | | 0 | | 0 | |
| Reduced v/c Ratio | 0.95 | | 0.71 | | | 0.74 | | 0.33 | | 0.83 | |

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.95
Intersection Signal Delay: 33.0 Intersection LOS: C
Intersection Capacity Utilization 85.6% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Cornelia St & 5S



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 67 | 1314 | 40 | 83 | 1084 | 21 | 211 | 54 | 82 | 44 | 55 | 63 |
| Future Volume (vph) | 67 | 1314 | 40 | 83 | 1084 | 21 | 211 | 54 | 82 | 44 | 55 | 63 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 100 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.996 | | | 0.997 | | | 0.910 | | | 0.920 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 3525 | 0 | 1770 | 3529 | 0 | 1770 | 1695 | 0 | 1770 | 1714 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.323 | | | 0.661 | | |
| Satd. Flow (perm) | 1770 | 3525 | 0 | 1770 | 3529 | 0 | 602 | 1695 | 0 | 1231 | 1714 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 4 | | | 3 | | | 85 | | | 50 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 699 | | | 306 | | | 449 | | | 508 | |
| Travel Time (s) | | 15.9 | | | 7.0 | | | 10.2 | | | 11.5 | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Adj. Flow (vph) | 74 | 1460 | 44 | 92 | 1204 | 23 | 234 | 60 | 91 | 49 | 61 | 70 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 74 | 1504 | 0 | 92 | 1227 | 0 | 234 | 151 | 0 | 49 | 131 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | pm+pt | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | | 4 | |
| Permitted Phases | | | | | | | 8 | | | 4 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 3 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 15.0 | | 6.0 | 15.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 11.0 | 20.0 | | 11.0 | 20.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Total Split (s) | 12.0 | 47.0 | | 12.0 | 47.0 | | 18.0 | 31.0 | | 13.0 | 13.0 | |
| Total Split (%) | 13.3% | 52.2% | | 13.3% | 52.2% | | 20.0% | 34.4% | | 14.4% | 14.4% | |
| Maximum Green (s) | 7.0 | 42.0 | | 7.0 | 42.0 | | 13.0 | 26.0 | | 8.0 | 8.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | | | Lag | Lag | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 2.0 | 2.0 | | 3.0 | 3.0 | | 3.0 | 2.0 | | 2.0 | 2.0 | |
| Recall Mode | None | C-Min | | None | C-Min | | None | None | | None | None | |
| Act Effct Green (s) | 6.8 | 45.5 | | 7.1 | 45.7 | | 24.7 | 24.7 | | 7.4 | 7.4 | |
| Actuated g/C Ratio | 0.08 | 0.51 | | 0.08 | 0.51 | | 0.27 | 0.27 | | 0.08 | 0.08 | |
| v/c Ratio | 0.56 | 0.84 | | 0.66 | 0.68 | | 0.72 | 0.29 | | 0.49 | 0.70 | |
| Control Delay | 53.3 | 21.6 | | 55.0 | 28.7 | | 40.8 | 13.2 | | 55.6 | 46.3 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 53.3 | 21.6 | | 55.0 | 28.7 | | 40.8 | 13.2 | | 55.6 | 46.3 | |
| LOS | D | C | | D | C | | D | B | | E | D | |
| Approach Delay | | 23.1 | | | 30.5 | | | 30.0 | | | 48.8 | |
| Approach LOS | | C | | | C | | | C | | | D | |





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Queue Length 50th (ft) | 46 | 290 | | 52 | 378 | | 109 | 28 | | 27 | 45 | |
| Queue Length 95th (ft) | m53 | m316 | | m#116 | 443 | | #187 | 74 | | #64 | #123 | |
| Internal Link Dist (ft) | | 619 | | | 226 | | | 369 | | | 428 | |
| Turn Bay Length (ft) | 100 | | | | | | | | | | | |
| Base Capacity (vph) | 137 | 1783 | | 141 | 1793 | | 334 | 550 | | 109 | 197 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.54 | 0.84 | | 0.65 | 0.68 | | 0.70 | 0.27 | | 0.45 | 0.66 | |

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 4 (4%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 28.0 Intersection LOS: C
Intersection Capacity Utilization 77.7% ICU Level of Service D
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 10: Broadway & 5S

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 15 | 1256 | 127 | 126 | 940 | 9 | 110 | 445 | 110 | 30 | 428 | 21 |
| Future Volume (vph) | 15 | 1256 | 127 | 126 | 940 | 9 | 110 | 445 | 110 | 30 | 428 | 21 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | 150 | 150 | | 0 | 150 | | 0 | 150 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 |
| Frt | | 0.986 | | | 0.999 | | | 0.970 | | | 0.993 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 3429 | 0 | 1770 | 3502 | 0 | 1770 | 1807 | 0 | 1770 | 3531 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.425 | | | 0.136 | | |
| Satd. Flow (perm) | 1770 | 3429 | 0 | 1770 | 3502 | 0 | 792 | 1807 | 0 | 253 | 3531 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 14 | | | 1 | | | 15 | | | 6 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 392 | | | 365 | | | 413 | | | 307 | |
| Travel Time (s) | | 8.9 | | | 8.3 | | | 9.4 | | | 7.0 | |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Heavy Vehicles (%) | 2% | 4% | 2% | 2% | 3% | 2% | 2% | 2% | 2% | 2% | 1% | 12% |
| Adj. Flow (vph) | 16 | 1308 | 132 | 131 | 979 | 9 | 115 | 464 | 115 | 31 | 446 | 22 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 16 | 1440 | 0 | 131 | 988 | 0 | 115 | 579 | 0 | 31 | 468 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | | | | | | | 8 | | | 4 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 8 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 8.0 | 15.0 | | 8.0 | 15.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 14.0 | 46.0 | | 14.0 | 46.0 | | 42.0 | 42.0 | | 42.0 | 42.0 | |
| Total Split (s) | 12.0 | 42.0 | | 12.0 | 42.0 | | 36.0 | 36.0 | | 36.0 | 36.0 | |
| Total Split (%) | 13.3% | 46.7% | | 13.3% | 46.7% | | 40.0% | 40.0% | | 40.0% | 40.0% | |
| Maximum Green (s) | 6.0 | 36.0 | | 6.0 | 36.0 | | 30.0 | 30.0 | | 30.0 | 30.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 1.0 | | 3.0 | 3.0 | | 2.5 | 2.5 | | 2.5 | 2.5 | |
| Recall Mode | None | C-Min | | None | C-Min | | None | None | | None | None | |
| Walk Time (s) | | 7.0 | | | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | | 33.0 | | | 33.0 | | 29.0 | 29.0 | | 29.0 | 29.0 | |
| Pedestrian Calls (#/hr) | | 0 | | | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | 6.4 | 36.0 | | 6.5 | 46.1 | | 29.5 | 29.5 | | 29.5 | 29.5 | |
| Actuated g/C Ratio | 0.07 | 0.40 | | 0.07 | 0.51 | | 0.33 | 0.33 | | 0.33 | 0.33 | |
| v/c Ratio | 0.13 | 1.04 | | 1.03 | 0.55 | | 0.44 | 0.96 | | 0.37 | 0.40 | |
| Control Delay | 54.8 | 49.9 | | 132.5 | 17.4 | | 30.1 | 58.7 | | 38.4 | 24.2 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 20.0 | | 0.0 | 0.0 | |



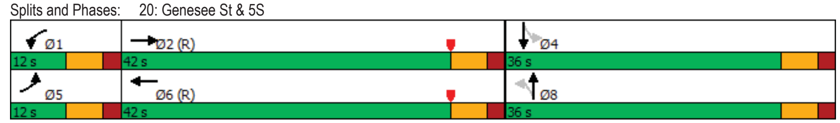


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Delay | 54.8 | 49.9 | | 132.5 | 17.4 | | 30.1 | 78.7 | | 38.4 | 24.2 | |
| LOS | D | D | | F | B | | C | E | | D | C | |
| Approach Delay | | 49.9 | | | 30.8 | | | 70.6 | | | 25.1 | |
| Approach LOS | | D | | | C | | | E | | | C | |
| Queue Length 50th (ft) | 8 | ~481 | | ~86 | 181 | | 50 | 310 | | 13 | 105 | |
| Queue Length 95th (ft) | m12 | #624 | | #198 | 313 | | 103 | #523 | | 44 | 147 | |
| Internal Link Dist (ft) | | 312 | | | 285 | | | 333 | | | 227 | |
| Turn Bay Length (ft) | 150 | | | 150 | | | 150 | | | 150 | | |
| Base Capacity (vph) | 126 | 1380 | | 127 | 1793 | | 264 | 612 | | 84 | 1181 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 53 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.13 | 1.04 | | 1.03 | 0.55 | | 0.44 | 1.04 | | 0.37 | 0.40 | |

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 35 (39%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 105
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.04
Intersection Signal Delay: 44.8 Intersection LOS: D
Intersection Capacity Utilization 100.8% ICU Level of Service G
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 20: Genesee St & 5S



# NYSDOT Analysis
# MVHS IHC Future Build - Mitigation
# AM Synchro Reports

| Lane Group | EBT | EBR | WBT | WBR | NBL | NBT | NBR | SBT | SBR2 | NER |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (vph) | 1078 | 41 | 1008 | 1 | 37 | 0 | 17 | 7 | 85 | 292 |
| Future Volume (vph) | 1078 | 41 | 1008 | 1 | 37 | 0 | 17 | 7 | 85 | 292 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | | 0 | | 0 | 0 | | 0 | | | 0 |
| Storage Lanes | | 0 | | 0 | 1 | | 0 | | | 1 |
| Taper Length (ft) | | | | | 25 | | | | | |
| Lane Util. Factor | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.994 | | | | | 0.850 | | 0.876 | | 0.865 |
| Flt Protected | | | | | 0.950 | | | | | |
| Satd. Flow (prot) | 3485 | 0 | 3505 | 0 | 1805 | 1615 | 0 | 1550 | 0 | 1596 |
| Flt Permitted | | | | | 0.660 | | | | | |
| Satd. Flow (perm) | 3485 | 0 | 3505 | 0 | 1254 | 1615 | 0 | 1550 | 0 | 1596 |
| Right Turn on Red | | | | Yes | | | No | | Yes | |
| Satd. Flow (RTOR) | | | | | | | | 94 | | |
| Link Speed (mph) | 30 | | 30 | | | 30 | | 30 | | |
| Link Distance (ft) | 284 | | 699 | | | 262 | | 334 | | |
| Travel Time (s) | 6.5 | | 15.9 | | | 6.0 | | 7.6 | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 3% | 2% | 3% | 0% | 0% | 0% | 0% | 0% | 8% | 3% |
| Adj. Flow (vph) | 1198 | 46 | 1120 | 1 | 41 | 0 | 19 | 8 | 94 | 324 |
| Shared Lane Traffic (%) | | | | | | | | | | |
| Lane Group Flow (vph) | 1244 | 0 | 1121 | 0 | 41 | 19 | 0 | 102 | 0 | 324 |
| Turn Type | NA | | NA | | Perm | NA | | NA | | Prot |
| Protected Phases | 2 | | 6 | | | 4 | | 8 | | 1 |
| Permitted Phases | | | | | 4 | | | | | |
| Detector Phase | 2 | | 6 | | 4 | 4 | | 8 | | 1 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 12.0 | | 12.0 | | 6.0 | 6.0 | | 6.0 | | 6.0 |
| Minimum Split (s) | 17.0 | | 17.0 | | 11.0 | 11.0 | | 11.0 | | 11.0 |
| Total Split (s) | 54.0 | | 69.0 | | 26.0 | 26.0 | | 26.0 | | 15.0 |
| Total Split (%) | 56.8% | | 72.6% | | 27.4% | 27.4% | | 27.4% | | 15.8% |
| Maximum Green (s) | 49.0 | | 64.0 | | 21.0 | 21.0 | | 21.0 | | 10.0 |
| Yellow Time (s) | 3.5 | | 3.5 | | 3.5 | 3.5 | | 3.5 | | 3.5 |
| All-Red Time (s) | 1.5 | | 1.5 | | 1.5 | 1.5 | | 1.5 | | 1.5 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Lost Time (s) | 5.0 | | 5.0 | | 5.0 | 5.0 | | 5.0 | | 5.0 |
| Lead/Lag | Lag | | | | | | | | | Lead |
| Lead-Lag Optimize? | | | | | | | | | | |
| Vehicle Extension (s) | 2.0 | | 2.0 | | 2.0 | 2.0 | | 2.0 | | 2.0 |
| Recall Mode | C-Min | | C-Min | | None | None | | None | | None |
| Act Effct Green (s) | 42.4 | | 80.3 | | 7.9 | 7.9 | | 7.9 | | 31.9 |
| Actuated g/C Ratio | 0.45 | | 0.85 | | 0.08 | 0.08 | | 0.08 | | 0.34 |
| v/c Ratio | 0.80 | | 0.38 | | 0.40 | 0.14 | | 0.48 | | 0.60 |
| Control Delay | 26.7 | | 3.8 | | 51.9 | 41.6 | | 18.1 | | 36.3 |
| Queue Delay | 0.1 | | 0.0 | | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Delay | 26.7 | | 3.8 | | 51.9 | 41.6 | | 18.1 | | 36.3 |
| LOS | C | | A | | D | D | | B | | D |
| Approach Delay | 26.7 | | 3.8 | | | 48.6 | | 18.1 | | |



Lanes, Volumes, Timings
6: Cornelia Street/Cornelia St & 5S 03/04/2019

| Lane Group | EBT | EBR | WBT | WBR | NBL | NBT | NBR | SBT | SBR2 | NER |
|---|---|---|---|---|---|---|---|---|---|---|
| Approach LOS | C | | A | | | D | | B | | |
| Queue Length 50th (ft) | 326 | | 180 | | 24 | 11 | | 5 | | 168 |
| Queue Length 95th (ft) | 359 | | 97 | | 56 | 32 | | 52 | | #363 |
| Internal Link Dist (ft) | 204 | | 619 | | | 182 | | 254 | | |
| Turn Bay Length (ft) | | | | | | | | | | |
| Base Capacity (vph) | 1797 | | 2964 | | 277 | 357 | | 415 | | 536 |
| Starvation Cap Reductn | 0 | | 0 | | 0 | 0 | | 0 | | 0 |
| Spillback Cap Reductn | 41 | | 0 | | 0 | 0 | | 0 | | 0 |
| Storage Cap Reductn | 0 | | 0 | | 0 | 0 | | 0 | | 0 |
| Reduced v/c Ratio | 0.71 | | 0.38 | | 0.15 | 0.05 | | 0.25 | | 0.60 |

Intersection Summary

Area Type: Other
Cycle Length: 95
Actuated Cycle Length: 95
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.80
Intersection Signal Delay: 19.0 Intersection LOS: B
Intersection Capacity Utilization 70.4% ICU Level of Service C
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Cornelia Street/Cornelia St & 5S

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 68 | 1293 | 103 | 217 | 1030 | 0 | 69 | 27 | 28 | 32 | 69 | 17 |
| Future Volume (vph) | 68 | 1293 | 103 | 217 | 1030 | 0 | 69 | 27 | 28 | 32 | 69 | 17 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 257 | | 0 | 253 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.989 | | | | | | 0.924 | | | 0.970 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 3500 | 0 | 1770 | 3539 | 0 | 1770 | 1721 | 0 | 1770 | 1807 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.412 | | | 0.717 | | |
| Satd. Flow (perm) | 1770 | 3500 | 0 | 1770 | 3539 | 0 | 767 | 1721 | 0 | 1336 | 1807 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 12 | | | | | | 31 | | | 10 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 699 | | | 306 | | | 481 | | | 508 | |
| Travel Time (s) | | 15.9 | | | 7.0 | | | 10.9 | | | 11.5 | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Adj. Flow (vph) | 76 | 1437 | 114 | 241 | 1144 | 0 | 77 | 30 | 31 | 36 | 77 | 19 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 76 | 1551 | 0 | 241 | 1144 | 0 | 77 | 61 | 0 | 36 | 96 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | pm+pt | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | | 4 | |
| Permitted Phases | | | | | | | 8 | | | 4 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 3 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 15.0 | | 6.0 | 15.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 21.0 | 27.0 | | 11.0 | 27.0 | | 11.0 | 36.0 | | 36.0 | 36.0 | |
| Total Split (s) | 11.0 | 53.0 | | 11.0 | 53.0 | | 18.0 | 31.0 | | 13.0 | 13.0 | |
| Total Split (%) | 11.6% | 55.8% | | 11.6% | 55.8% | | 18.9% | 32.6% | | 13.7% | 13.7% | |
| Maximum Green (s) | 6.0 | 48.0 | | 6.0 | 48.0 | | 13.0 | 26.0 | | 8.0 | 8.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | | | Lag | Lag | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 2.0 | 2.0 | | 3.0 | 3.0 | | 3.0 | 2.0 | | 2.0 | 2.0 | |
| Recall Mode | None | C-Min | | None | C-Min | | None | None | | None | None | |
| Act Effct Green (s) | 7.0 | 46.7 | | 15.6 | 58.5 | | 19.9 | 19.9 | | 8.5 | 8.5 | |
| Actuated g/C Ratio | 0.07 | 0.49 | | 0.16 | 0.62 | | 0.21 | 0.21 | | 0.09 | 0.09 | |
| v/c Ratio | 0.59 | 0.90 | | 0.83 | 0.52 | | 0.31 | 0.16 | | 0.30 | 0.56 | |
| Control Delay | 63.8 | 15.4 | | 63.6 | 19.6 | | 31.4 | 16.8 | | 46.7 | 49.9 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 63.8 | 15.4 | | 63.6 | 19.6 | | 31.4 | 16.8 | | 46.7 | 49.9 | |
| LOS | E | B | | E | B | | C | B | | D | D | |
| Approach Delay | | 17.7 | | | 27.2 | | | 25.0 | | | 49.0 | |
| Approach LOS | | B | | | C | | | C | | | D | |





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Queue Length 50th (ft) | 44 | 155 | | ~201 | 182 | | 37 | 14 | | 21 | 50 | |
| Queue Length 95th (ft) | m#76 | 206 | | #386 | 440 | | 71 | 44 | | 52 | 101 | |
| Internal Link Dist (ft) | | 619 | | | 226 | | | 401 | | | 428 | |
| Turn Bay Length (ft) | 257 | | | 253 | | | | | | | | |
| Base Capacity (vph) | 129 | 1774 | | 290 | 2181 | | 309 | 493 | | 126 | 180 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.59 | 0.87 | | 0.83 | 0.52 | | 0.25 | 0.12 | | 0.29 | 0.53 | |

Intersection Summary

Area Type: Other
Cycle Length: 95
Actuated Cycle Length: 95
Offset: 3 (3%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 125
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 23.3 Intersection LOS: C
Intersection Capacity Utilization 74.0% ICU Level of Service D
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 10: Broadway & 5S

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 1358 | 7 | 0 | 1222 | 3 | 0 | 0 | 9 | 0 | 0 | 8 |
| Future Volume (vph) | 0 | 1358 | 7 | 0 | 1222 | 3 | 0 | 0 | 9 | 0 | 0 | 8 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 100 | | 0 | 100 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 1 | 0 | | 0 | 0 | | 1 | 0 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.999 | | | | | | | 0.865 | | | 0.865 |
| Flt Protected | | | | | | | | | | | | |
| Satd. Flow (prot) | 0 | 3536 | 0 | 0 | 3539 | 0 | 0 | 0 | 1611 | 0 | 0 | 1611 |
| Flt Permitted | | | | | | | | | | | | |
| Satd. Flow (perm) | 0 | 3536 | 0 | 0 | 3539 | 0 | 0 | 0 | 1611 | 0 | 0 | 1611 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 306 | | | 333 | | | 450 | | | 317 | |
| Travel Time (s) | | 7.0 | | | 7.6 | | | 10.2 | | | 7.2 | |
| Confl. Peds. (#/hr) | | | | | | | 15 | | | | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Adj. Flow (vph) | 0 | 1509 | 8 | 0 | 1358 | 3 | 0 | 0 | 10 | 0 | 0 | 9 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1517 | 0 | 0 | 1361 | 0 | 0 | 0 | 10 | 0 | 0 | 9 |
| Sign Control | | Free | | | Free | | | Yield | | | Yield | |

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 47.8% ICU Level of Service A
Analysis Period (min) 15





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 76 | 1273 | 46 | 0 | 1150 | 15 | 0 | 0 | 11 | 0 | 0 | 88 |
| Future Volume (vph) | 76 | 1273 | 46 | 0 | 1150 | 15 | 0 | 0 | 11 | 0 | 0 | 88 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | 0 | 150 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 1 | | 0 | 0 | | 0 | 0 | | 1 | 0 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.995 | | | 0.998 | | | | 0.865 | | | 0.865 |
| Flt Protected | 0.950 | | | | | | | | | | | |
| Satd. Flow (prot) | 1752 | 3491 | 0 | 0 | 3532 | 0 | 0 | 0 | 1644 | 0 | 0 | 1644 |
| Flt Permitted | 0.950 | | | | | | | | | | | |
| Satd. Flow (perm) | 1752 | 3491 | 0 | 0 | 3532 | 0 | 0 | 0 | 1644 | 0 | 0 | 1644 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 333 | | | 392 | | | 423 | | | 252 | |
| Travel Time (s) | | 7.6 | | | 8.9 | | | 9.6 | | | 5.7 | |
| Peak Hour Factor | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 |
| Heavy Vehicles (%) | 3% | 3% | 0% | 2% | 2% | 2% | 0% | 2% | 0% | 2% | 2% | 0% |
| Adj. Flow (vph) | 92 | 1534 | 55 | 0 | 1386 | 18 | 0 | 0 | 13 | 0 | 0 | 106 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 92 | 1589 | 0 | 0 | 1404 | 0 | 0 | 0 | 13 | 0 | 0 | 106 |
| Sign Control | | Free | | | Free | | | Yield | | | Yield | |

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 46.7% ICU Level of Service A
Analysis Period (min) 15

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | ↰ | ↑↑↱ | | ↰ | ↑↑↱ | | ↰ | ↑ | ↱ | ↰ | ↑↑↱ | |
| Traffic Volume (vph) | 5 | 1158 | 170 | 164 | 1097 | 7 | 45 | 178 | 51 | 41 | 506 | 35 |
| Future Volume (vph) | 5 | 1158 | 170 | 164 | 1097 | 7 | 45 | 178 | 51 | 41 | 506 | 35 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | 150 | 150 | | 0 | 150 | | 0 | 150 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 1 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 |
| Frt | | 0.981 | | | 0.999 | | | | 0.850 | | 0.990 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 3506 | 0 | 1770 | 3502 | 0 | 1770 | 1681 | 1583 | 1770 | 3472 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.228 | | | 0.536 | | |
| Satd. Flow (perm) | 1770 | 3506 | 0 | 1770 | 3502 | 0 | 425 | 1681 | 1583 | 998 | 3472 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 22 | | | 1 | | | | 103 | | 8 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 392 | | | 616 | | | 464 | | | 307 | |
| Travel Time (s) | | 8.9 | | | 14.0 | | | 10.5 | | | 7.0 | |
| Peak Hour Factor | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 |
| Heavy Vehicles (%) | 2% | 1% | 1% | 2% | 3% | 2% | 2% | 13% | 2% | 2% | 3% | 2% |
| Adj. Flow (vph) | 6 | 1347 | 198 | 191 | 1276 | 8 | 52 | 207 | 59 | 48 | 588 | 41 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 6 | 1545 | 0 | 191 | 1284 | 0 | 52 | 207 | 59 | 48 | 629 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | Perm | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | | | | | | | 8 | | 8 | 4 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 8 | 8 | 8 | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 8.0 | 15.0 | | 8.0 | 15.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | |
| Minimum Split (s) | 14.0 | 46.0 | | 14.0 | 46.0 | | 42.0 | 42.0 | 42.0 | 42.0 | 42.0 | |
| Total Split (s) | 11.0 | 48.0 | | 11.0 | 48.0 | | 36.0 | 36.0 | 36.0 | 36.0 | 36.0 | |
| Total Split (%) | 11.6% | 50.5% | | 11.6% | 50.5% | | 37.9% | 37.9% | 37.9% | 37.9% | 37.9% | |
| Maximum Green (s) | 5.0 | 42.0 | | 5.0 | 42.0 | | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 1.0 | | 3.0 | 3.0 | | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | |
| Recall Mode | None | C-Min | | None | C-Min | | None | None | None | None | None | |
| Walk Time (s) | | 7.0 | | | 7.0 | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | |
| Flash Dont Walk (s) | | 33.0 | | | 33.0 | | 29.0 | 29.0 | 29.0 | 29.0 | 29.0 | |
| Pedestrian Calls (#/hr) | | 0 | | | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Act Effct Green (s) | 7.6 | 42.0 | | 12.1 | 57.7 | | 22.9 | 22.9 | 22.9 | 22.9 | 22.9 | |
| Actuated g/C Ratio | 0.08 | 0.44 | | 0.13 | 0.61 | | 0.24 | 0.24 | 0.24 | 0.24 | 0.24 | |
| v/c Ratio | 0.04 | 0.99 | | 0.85 | 0.60 | | 0.51 | 0.51 | 0.13 | 0.20 | 0.75 | |
| Control Delay | 55.4 | 26.9 | | 76.3 | 15.0 | | 47.9 | 34.9 | 1.9 | 28.9 | 38.3 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |



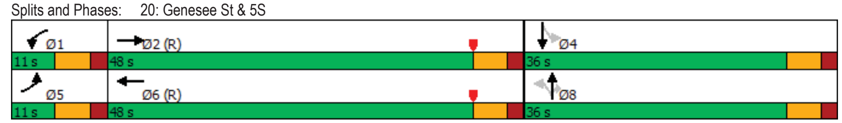


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Delay | 55.4 | 26.9 | | 76.3 | 15.0 | | 47.9 | 34.9 | 1.9 | 28.9 | 38.3 | |
| LOS | E | C | | E | B | | D | C | A | C | D | |
| Approach Delay | | 27.0 | | | 22.9 | | | 30.9 | | | 37.7 | |
| Approach LOS | | C | | | C | | | C | | | D | |
| Queue Length 50th (ft) | 4 | 76 | | 114 | 212 | | 27 | 109 | 0 | 23 | 183 | |
| Queue Length 95th (ft) | m6 | #570 | | #292 | 407 | | 60 | 154 | 6 | 47 | 210 | |
| Internal Link Dist (ft) | | 312 | | | 536 | | | 384 | | | 227 | |
| Turn Bay Length (ft) | 150 | | | 150 | | | 150 | | | 150 | | |
| Base Capacity (vph) | 141 | 1562 | | 225 | 2128 | | 134 | 530 | 570 | 315 | 1101 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.04 | 0.99 | | 0.85 | 0.60 | | 0.39 | 0.39 | 0.10 | 0.15 | 0.57 | |

Intersection Summary

Area Type: Other
Cycle Length: 95
Actuated Cycle Length: 95
Offset: 20 (21%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.99
Intersection Signal Delay: 27.6 Intersection LOS: C
Intersection Capacity Utilization 86.6% ICU Level of Service E
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 20: Genesee St & 5S



# NYSDOT Analysis
# MVHS IHC Future Build - Mitigation
# AM Synchro Reports

| Lane Group | EBT | EBR | WBT | WBR | NBL | NBT | NBR | SBT | SBR2 | NER | NER2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 1028 | 17 | 1364 | 2 | 192 | 0 | 49 | 3 | 186 | 235 | 2 |
| Future Volume (vph) | 1028 | 17 | 1364 | 2 | 192 | 0 | 49 | 3 | 186 | 235 | 2 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | | 0 | | 0 | 0 | | 0 | | | 0 | |
| Storage Lanes | | 0 | | 0 | 1 | | 0 | | | 1 | |
| Taper Length (ft) | | | | | 25 | | | | | | |
| Lane Util. Factor | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.998 | | | | | 0.850 | | 0.867 | | 0.865 | |
| Flt Protected | | | | | 0.950 | | | | | | |
| Satd. Flow (prot) | 3492 | 0 | 3539 | 0 | 1805 | 1615 | 0 | 1615 | 0 | 1594 | 0 |
| Flt Permitted | | | | | 0.514 | | | | | | |
| Satd. Flow (perm) | 3492 | 0 | 3539 | 0 | 977 | 1615 | 0 | 1615 | 0 | 1594 | 0 |
| Right Turn on Red | | | | Yes | | | No | | Yes | | No |
| Satd. Flow (RTOR) | | | | | | | | 75 | | | |
| Link Speed (mph) | 30 | | 30 | | | 30 | | 30 | | | |
| Link Distance (ft) | 365 | | 699 | | | 218 | | 244 | | | |
| Travel Time (s) | 8.3 | | 15.9 | | | 5.0 | | 5.5 | | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 3% | 14% | 2% | 0% | 0% | 0% | 0% | 0% | 2% | 3% | 14% |
| Adj. Flow (vph) | 1142 | 19 | 1516 | 2 | 213 | 0 | 54 | 3 | 207 | 261 | 2 |
| Shared Lane Traffic (%) | | | | | | | | | | | |
| Lane Group Flow (vph) | 1161 | 0 | 1518 | 0 | 213 | 54 | 0 | 210 | 0 | 263 | 0 |
| Turn Type | NA | | NA | | Perm | NA | | NA | | Prot | |
| Protected Phases | 2 | | 6 | | | 4 | | 8 | | 1 | |
| Permitted Phases | | | | | 4 | | | | | | |
| Detector Phase | 2 | | 6 | | 4 | 4 | | 8 | | 1 | |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 12.0 | | 12.0 | | 6.0 | 6.0 | | 6.0 | | 6.0 | |
| Minimum Split (s) | 17.0 | | 17.0 | | 11.0 | 11.0 | | 11.0 | | 17.5 | |
| Total Split (s) | 45.0 | | 69.0 | | 26.0 | 26.0 | | 26.0 | | 24.0 | |
| Total Split (%) | 47.4% | | 72.6% | | 27.4% | 27.4% | | 27.4% | | 25.3% | |
| Maximum Green (s) | 40.0 | | 64.0 | | 21.0 | 21.0 | | 21.0 | | 19.5 | |
| Yellow Time (s) | 3.5 | | 3.5 | | 3.5 | 3.5 | | 3.5 | | 3.0 | |
| All-Red Time (s) | 1.5 | | 1.5 | | 1.5 | 1.5 | | 1.5 | | 1.5 | |
| Lost Time Adjust (s) | 0.0 | | 0.0 | | 0.0 | 0.0 | | 0.0 | | 0.0 | |
| Total Lost Time (s) | 5.0 | | 5.0 | | 5.0 | 5.0 | | 5.0 | | 4.5 | |
| Lead/Lag | Lag | | | | | | | | | Lead | |
| Lead-Lag Optimize? | | | | | | | | | | | |
| Vehicle Extension (s) | 2.0 | | 2.0 | | 2.0 | 2.0 | | 2.0 | | 2.0 | |
| Recall Mode | C-Min | | C-Min | | None | None | | None | | None | |
| Act Effct Green (s) | 38.4 | | 60.8 | | 24.2 | 24.2 | | 24.2 | | 17.9 | |
| Actuated g/C Ratio | 0.40 | | 0.64 | | 0.25 | 0.25 | | 0.25 | | 0.19 | |
| v/c Ratio | 0.82 | | 0.67 | | 0.86 | 0.13 | | 0.45 | | 0.87 | |
| Control Delay | 31.1 | | 13.8 | | 67.7 | 30.3 | | 23.5 | | 66.1 | |
| Queue Delay | 0.0 | | 0.0 | | 0.0 | 0.0 | | 0.0 | | 0.0 | |
| Total Delay | 31.1 | | 13.8 | | 67.7 | 30.3 | | 23.5 | | 66.1 | |
| LOS | C | | B | | E | C | | C | | E | |
| Approach Delay | 31.1 | | 13.8 | | | 60.1 | | 23.5 | | | |





| Lane Group | EBT | EBR | WBT | WBR | NBL | NBT | NBR | SBT | SBR2 | NER | NER2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach LOS | C | | B | | | E | | C | | | |
| Queue Length 50th (ft) | 321 | | 290 | | 126 | 26 | | 68 | | 152 | |
| Queue Length 95th (ft) | 396 | | 265 | | #274 | 58 | | 141 | | #279 | |
| Internal Link Dist (ft) | 285 | | 619 | | | 138 | | 164 | | | |
| Turn Bay Length (ft) | | | | | | | | | | | |
| Base Capacity (vph) | 1470 | | 2384 | | 248 | 411 | | 467 | | 327 | |
| Starvation Cap Reductn | 0 | | 10 | | 0 | 0 | | 0 | | 0 | |
| Spillback Cap Reductn | 0 | | 0 | | 0 | 0 | | 0 | | 0 | |
| Storage Cap Reductn | 0 | | 0 | | 0 | 0 | | 0 | | 0 | |
| Reduced v/c Ratio | 0.79 | | 0.64 | | 0.86 | 0.13 | | 0.45 | | 0.80 | |

Intersection Summary

Area Type: Other

Cycle Length: 95

Actuated Cycle Length: 95

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 27.9 Intersection LOS: C

Intersection Capacity Utilization 82.2% ICU Level of Service E

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Cornelia St & 5S

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | ↰ | ↑↱ | | ↰ | ↑↱ | | ↰ | ↱ | | ↰ | ↱ | |
| Traffic Volume (vph) | 67 | 1314 | 40 | 83 | 1084 | 21 | 211 | 54 | 82 | 44 | 55 | 63 |
| Future Volume (vph) | 67 | 1314 | 40 | 83 | 1084 | 21 | 211 | 54 | 82 | 44 | 55 | 63 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 100 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.996 | | | 0.997 | | | 0.910 | | | 0.920 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 3525 | 0 | 1770 | 3529 | 0 | 1770 | 1695 | 0 | 1770 | 1714 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.320 | | | 0.661 | | |
| Satd. Flow (perm) | 1770 | 3525 | 0 | 1770 | 3529 | 0 | 596 | 1695 | 0 | 1231 | 1714 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 4 | | | 3 | | | 79 | | | 47 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 699 | | | 306 | | | 449 | | | 508 | |
| Travel Time (s) | | 15.9 | | | 7.0 | | | 10.2 | | | 11.5 | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Adj. Flow (vph) | 74 | 1460 | 44 | 92 | 1204 | 23 | 234 | 60 | 91 | 49 | 61 | 70 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 74 | 1504 | 0 | 92 | 1227 | 0 | 234 | 151 | 0 | 49 | 131 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | pm+pt | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | | 4 | |
| Permitted Phases | | | | | | | 8 | | | 4 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 3 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 15.0 | | 6.0 | 15.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 11.0 | 20.0 | | 11.0 | 20.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Total Split (s) | 12.0 | 52.0 | | 12.0 | 52.0 | | 18.0 | 31.0 | | 13.0 | 13.0 | |
| Total Split (%) | 12.6% | 54.7% | | 12.6% | 54.7% | | 18.9% | 32.6% | | 13.7% | 13.7% | |
| Maximum Green (s) | 7.0 | 47.0 | | 7.0 | 47.0 | | 13.0 | 26.0 | | 8.0 | 8.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | | | Lag | Lag | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 2.0 | 2.0 | | 3.0 | 3.0 | | 3.0 | 2.0 | | 2.0 | 2.0 | |
| Recall Mode | None | C-Min | | None | C-Min | | None | None | | None | None | |
| Act Effct Green (s) | 6.8 | 49.9 | | 7.3 | 50.3 | | 25.1 | 25.1 | | 7.5 | 7.5 | |
| Actuated g/C Ratio | 0.07 | 0.53 | | 0.08 | 0.53 | | 0.26 | 0.26 | | 0.08 | 0.08 | |
| v/c Ratio | 0.59 | 0.81 | | 0.68 | 0.66 | | 0.75 | 0.30 | | 0.51 | 0.73 | |
| Control Delay | 66.6 | 11.4 | | 62.5 | 24.4 | | 45.7 | 15.3 | | 60.2 | 51.9 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 66.6 | 11.4 | | 62.5 | 24.4 | | 45.7 | 15.3 | | 60.2 | 51.9 | |
| LOS | E | B | | E | C | | D | B | | E | D | |
| Approach Delay | | 14.0 | | | 27.0 | | | 33.8 | | | 54.2 | |
| Approach LOS | | B | | | C | | | C | | | D | |





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Queue Length 50th (ft) | 48 | 138 | | 58 | 206 | | 118 | 33 | | 29 | 50 | |
| Queue Length 95th (ft) | m64 | 243 | | #138 | 426 | | #211 | 83 | | #71 | #135 | |
| Internal Link Dist (ft) | | 619 | | | 226 | | | 369 | | | 428 | |
| Turn Bay Length (ft) | 100 | | | | | | | | | | | |
| Base Capacity (vph) | 130 | 1868 | | 136 | 1870 | | 319 | 522 | | 103 | 187 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.57 | 0.81 | | 0.68 | 0.66 | | 0.73 | 0.29 | | 0.48 | 0.70 | |

Intersection Summary

Area Type: Other
Cycle Length: 95
Actuated Cycle Length: 95
Offset: 6 (6%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 23.3 Intersection LOS: C
Intersection Capacity Utilization 77.7% ICU Level of Service D
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 10: Broadway & 5S

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 1430 | 4 | 0 | 1174 | 1 | 0 | 0 | 24 | 0 | 0 | 16 |
| Future Volume (vph) | 0 | 1430 | 4 | 0 | 1174 | 1 | 0 | 0 | 24 | 0 | 0 | 16 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 100 | | 0 | 100 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 1 | 0 | | 0 | 0 | | 1 | 0 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | | | | | | | 0.865 | | | 0.865 |
| Flt Protected | | | | | | | | | | | | |
| Satd. Flow (prot) | 0 | 3539 | 0 | 0 | 3539 | 0 | 0 | 0 | 1611 | 0 | 0 | 1611 |
| Flt Permitted | | | | | | | | | | | | |
| Satd. Flow (perm) | 0 | 3539 | 0 | 0 | 3539 | 0 | 0 | 0 | 1611 | 0 | 0 | 1611 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 306 | | | 333 | | | 408 | | | 317 | |
| Travel Time (s) | | 7.0 | | | 7.6 | | | 9.3 | | | 7.2 | |
| Confl. Peds. (#/hr) | | | | | | | 15 | | | | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Adj. Flow (vph) | 0 | 1589 | 4 | 0 | 1304 | 1 | 0 | 0 | 27 | 0 | 0 | 18 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1593 | 0 | 0 | 1305 | 0 | 0 | 0 | 27 | 0 | 0 | 18 |
| Sign Control | | Free | | | Free | | | Yield | | | Yield | |

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 49.7% ICU Level of Service A

Analysis Period (min) 15





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 31 | 1386 | 21 | 0 | 1014 | 57 | 0 | 0 | 32 | 0 | 0 | 37 |
| Future Volume (vph) | 31 | 1386 | 21 | 0 | 1014 | 57 | 0 | 0 | 32 | 0 | 0 | 37 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | 0 | 150 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 1 | | 0 | 0 | | 0 | 0 | | 1 | 0 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.998 | | | 0.992 | | | | 0.865 | | | 0.865 |
| Flt Protected | 0.950 | | | | | | | | | | | |
| Satd. Flow (prot) | 1770 | 3466 | 0 | 0 | 3385 | 0 | 0 | 0 | 822 | 0 | 0 | 1611 |
| Flt Permitted | 0.950 | | | | | | | | | | | |
| Satd. Flow (perm) | 1770 | 3466 | 0 | 0 | 3385 | 0 | 0 | 0 | 822 | 0 | 0 | 1611 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 333 | | | 392 | | | 394 | | | 252 | |
| Travel Time (s) | | 7.6 | | | 8.9 | | | 9.0 | | | 5.7 | |
| Peak Hour Factor | 0.92 | 0.90 | 0.90 | 0.90 | 0.90 | 0.92 | 0.90 | 0.92 | 0.90 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 2% | 4% | 0% | 11% | 6% | 2% | 0% | 2% | 100% | 2% | 2% | 2% |
| Adj. Flow (vph) | 34 | 1540 | 23 | 0 | 1127 | 62 | 0 | 0 | 36 | 0 | 0 | 40 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 34 | 1563 | 0 | 0 | 1189 | 0 | 0 | 0 | 36 | 0 | 0 | 40 |
| Sign Control | | Free | | | Free | | | Yield | | | Yield | |

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 49.0% ICU Level of Service A

Analysis Period (min) 15

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 15 | 1256 | 127 | 126 | 940 | 9 | 110 | 445 | 110 | 30 | 428 | 21 |
| Future Volume (vph) | 15 | 1256 | 127 | 126 | 940 | 9 | 110 | 445 | 110 | 30 | 428 | 21 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | 150 | 150 | | 0 | 150 | | 100 | 150 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 1 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 |
| Frt | | 0.986 | | | 0.999 | | | | 0.850 | | 0.993 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 3429 | 0 | 1770 | 3502 | 0 | 1770 | 1863 | 1583 | 1770 | 3531 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.399 | | | 0.176 | | |
| Satd. Flow (perm) | 1770 | 3429 | 0 | 1770 | 3502 | 0 | 743 | 1863 | 1583 | 328 | 3531 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 14 | | | 1 | | | | 80 | | 5 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 392 | | | 365 | | | 413 | | | 307 | |
| Travel Time (s) | | 8.9 | | | 8.3 | | | 9.4 | | | 7.0 | |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Heavy Vehicles (%) | 2% | 4% | 2% | 2% | 3% | 2% | 2% | 2% | 2% | 2% | 1% | 12% |
| Adj. Flow (vph) | 16 | 1308 | 132 | 131 | 979 | 9 | 115 | 464 | 115 | 31 | 446 | 22 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 16 | 1440 | 0 | 131 | 988 | 0 | 115 | 464 | 115 | 31 | 468 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | Perm | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | | | | | | | 8 | | 8 | 4 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 8 | 8 | 8 | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 15.0 | | 4.0 | 15.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | |
| Minimum Split (s) | 8.0 | 46.0 | | 8.0 | 46.0 | | 42.0 | 42.0 | 42.0 | 42.0 | 42.0 | |
| Total Split (s) | 11.0 | 48.0 | | 11.0 | 48.0 | | 36.0 | 36.0 | 36.0 | 36.0 | 36.0 | |
| Total Split (%) | 11.6% | 50.5% | | 11.6% | 50.5% | | 37.9% | 37.9% | 37.9% | 37.9% | 37.9% | |
| Maximum Green (s) | 7.0 | 42.0 | | 7.0 | 42.0 | | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 | |
| Yellow Time (s) | 3.5 | 4.0 | | 3.5 | 4.0 | | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| All-Red Time (s) | 0.5 | 2.0 | | 0.5 | 2.0 | | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.0 | 6.0 | | 4.0 | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | | | Yes | Yes | | | | | | | |
| Vehicle Extension (s) | 3.0 | 1.0 | | 3.0 | 3.0 | | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | |
| Recall Mode | None | C-Min | | None | C-Min | | None | None | None | None | None | |
| Walk Time (s) | | 7.0 | | | 7.0 | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | |
| Flash Dont Walk (s) | | 33.0 | | | 33.0 | | 29.0 | 29.0 | 29.0 | 29.0 | 29.0 | |
| Pedestrian Calls (#/hr) | | 0 | | | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Act Effct Green (s) | 6.3 | 42.8 | | 9.0 | 51.4 | | 27.2 | 27.2 | 27.2 | 27.2 | 27.2 | |
| Actuated g/C Ratio | 0.07 | 0.45 | | 0.09 | 0.54 | | 0.29 | 0.29 | 0.29 | 0.29 | 0.29 | |
| v/c Ratio | 0.14 | 0.93 | | 0.78 | 0.52 | | 0.54 | 0.87 | 0.23 | 0.33 | 0.46 | |
| Control Delay | 55.7 | 21.7 | | 75.7 | 16.9 | | 38.3 | 49.8 | 10.3 | 36.4 | 28.6 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 3.6 | 0.0 | 0.0 | 0.0 | |



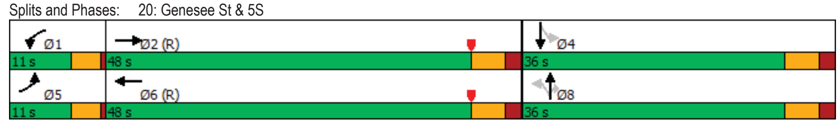


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Delay | 55.7 | 21.7 | | 75.7 | 16.9 | | 38.3 | 53.4 | 10.3 | 36.4 | 28.6 | |
| LOS | E | C | | E | B | | D | D | B | D | C | |
| Approach Delay | | 22.1 | | | 23.8 | | | 43.7 | | | 29.1 | |
| Approach LOS | | C | | | C | | | D | | | C | |
| Queue Length 50th (ft) | 11 | 140 | | 80 | 177 | | 56 | 256 | 15 | 14 | 116 | |
| Queue Length 95th (ft) | m15 | #565 | | #198 | 303 | | 114 | #405 | 54 | 42 | 160 | |
| Internal Link Dist (ft) | | 312 | | | 285 | | | 333 | | | 227 | |
| Turn Bay Length (ft) | 150 | | | 150 | | | 150 | | 100 | 150 | | |
| Base Capacity (vph) | 130 | 1551 | | 167 | 1894 | | 234 | 588 | 554 | 103 | 1118 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 63 | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.12 | 0.93 | | 0.78 | 0.52 | | 0.49 | 0.88 | 0.21 | 0.30 | 0.42 | |

Intersection Summary

Area Type: Other
Cycle Length: 95
Actuated Cycle Length: 95
Offset: 20 (21%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 27.5 Intersection LOS: C
Intersection Capacity Utilization 92.5% ICU Level of Service F
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 20: Genesee St & 5S



# Revised Appendix E
# Parking & Trip Generation Information

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# Land Use: 465
# Ice Skating Rink

### Description

An ice skating rink is a stand-alone facility used for ice-skating-oriented sports and entertainment activities. It may contain limited spectator seating, refreshment areas, a locker room, and arcade.

### Additional Data

Time-of-day distribution data for this land use are presented in Appendix A. For the one site with data, the peak hours for site trips on a weekday, Friday, and Saturday were between 1:30 and 2:30 p.m., 5:15 and 6:15 p.m., and 4:15 and 5:15 p.m., respectively.

The sites were surveyed in the 1990s, the 2000s, and the 2010s in California, New Jersey, and Utah.

### Source Numbers

441, 850, 954

# Ice Skating Rink
(465)

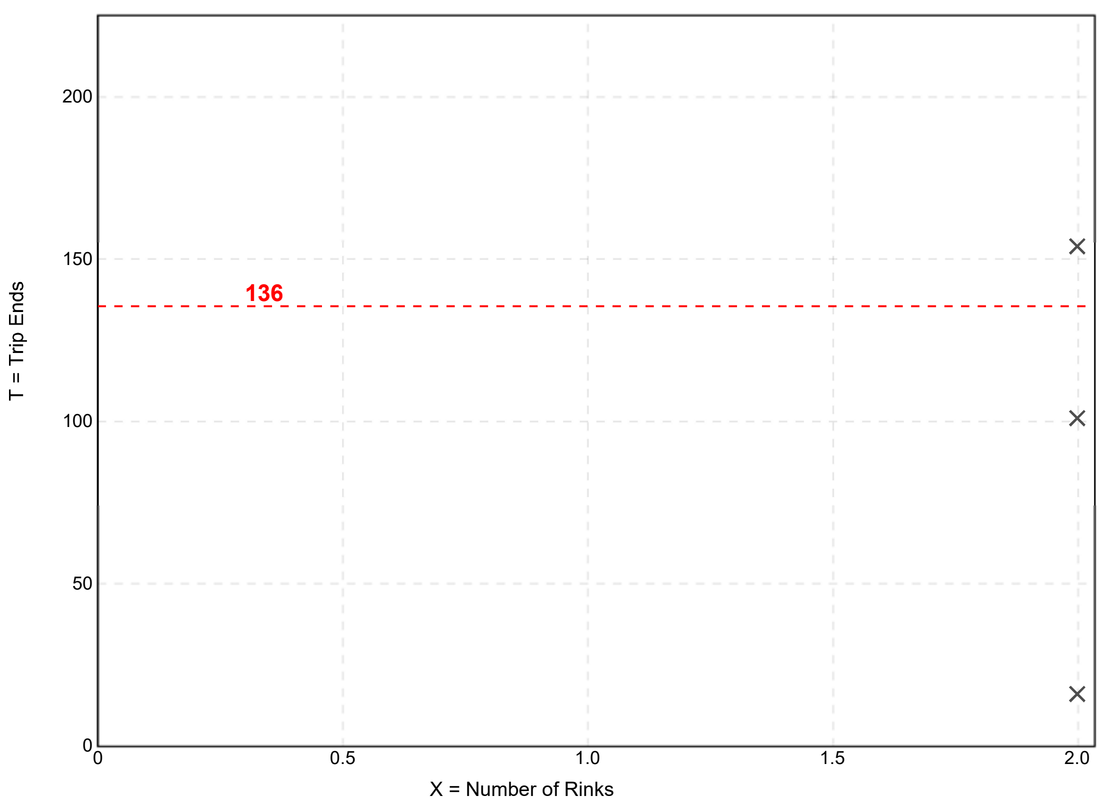
| | |
|---|---|
| **Vehicle Trip Ends vs:** | **Rinks** |
| **On a:** | **Weekday,** |
| | **Peak Hour of Adjacent Street Traffic,** |
| | **One Hour Between 4 and 6 p.m.** |
| **Setting/Location:** | **General Urban/Suburban** |
| Number of Studies: | 3 |
| Avg. Num. of Rinks: | 2 |
| Directional Distribution: | 62% entering, 38% exiting |

## Vehicle Trip Generation per Rink

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 45.17 | 8.00 - 77.00 | 34.81 |

## Data Plot and Equation

***Caution – Small Sample Size***




× **Study Site** - - - - **Average Rate**

**Fitted Curve Equation: Not Given** **$R^2$= ******

*Trip Generation Manual,* 10th Edition ● Institute of Transportation Engineers

# Land Use: 610
# Hospital

## Land Use Description

A hospital is any institution where medical or surgical care and overnight accommodations are provided to non-ambulatory and ambulatory patients. However, the term "hospital" does not refer to medical clinics (facilities that provide diagnoses and outpatient care only) or nursing homes (facilities devoted to the care of persons unable to care for themselves), which are covered elsewhere in this report. Surgery center (Land Use 612) and clinic (Land Use 630) are related uses.

## Database Description

The database consisted of a mix of rural, suburban and urban locations. Parking demand differed between these area types and therefore the data were analyzed separately.

- Average hospital size: 640,000 sq. ft. GFA (eight study sites). Average number of daily patients: 460 (12 study sites). Average number of daily patients per bed: 1.02 (ten study sites). Average number of staff per daily patient: 8.15 (seven study sites). These statistics apply to sites from all area types.
- Average parking supply ratios: 4.7 spaces per bed (49 study sites) and 0.82 spaces per employee (34 study sites). The table below presents comparative statistics for study sites, separated by area types.

| Site Data | Rural | Suburban | Urban |
|---|---|---|---|
| Parking supply per bed | 4.9 (7 sites) | 5.5 (20 sites) | 4.0 (22 sites) |
| Parking supply per employee | 0.95 (4 sites) | 0.90 (14 sites) | 0.72 (16 sites) |

Four hospitals located on university campuses were included in the data analyzed for this land use. These sites may exhibit parking generation characteristics different from other hospitals. However, based on the limited number of university medical hospitals in the database, conclusive quantitative comparisons could not be drawn. In general, average parking demand per bed for the surveyed university medical sites was greater than that for the other hospital sites. This could be attributed to the higher number of employees and larger floor area devoted to researchers and faculty at university medical centers compared to the other hospitals. For the university medical center study sites, average parking demand per employee was comparable to that found at other hospitals.

Seven of the study sites charged fees for parking. Daily parking fees ranged between \$2.00 and \$5.20. The average peak period parking demand at these study sites was substantially less than that observed for the overall hospital database. However, based on the small number of observations and the possibility that additional hospitals in the database charged for parking (most do not clearly indicate whether they charge for parking) conclusive development of a parking demand rate reduction attributable to paid parking could not be derived.

# Land Use: 610
# Hospital

The following table presents the time-of-day distribution of parking demand for all hospitals in the database, calculated on a per bed basis.

| *Based on Vehicles per Bed* | *Weekday Data* | |
|---|---|---|
| Hour Beginning | Percent of Peak Period | Number of Data Points |
| 12:00–4:00 a.m. | – | 0 |
| 5:00 a.m. | 8 | 1 |
| 6:00 a.m. | 15 | 6 |
| 7:00 a.m. | 41 | 15 |
| 8:00 a.m. | 75 | 29 |
| 9:00 a.m. | 95 | 43 |
| 10:00 a.m. | 93 | 41 |
| 11:00 a.m. | 98 | 46 |
| 12:00 p.m. | 91 | 37 |
| 1:00 p.m. | 100 | 48 |
| 2:00 p.m. | 91 | 38 |
| 3:00 p.m. | 97 | 47 |
| 4:00 p.m. | 72 | 36 |
| 5:00 p.m. | 44 | 17 |
| 6:00 p.m. | 36 | 9 |
| 7:00 p.m. | 33 | 6 |
| 8:00 p.m. | 23 | 3 |
| 9:00 p.m. | 14 | 1 |
| 10:00 p.m. | 12 | 1 |
| 11:00 p.m. | 14 | 1 |

***Future parking demand data collection should include additional potential variables (such as 1,000 sq. ft. GFA, doctors, occupied beds and daily patient visits) as well as those currently plotted.***

## Study Sites/Years

**Canada:**
Saskatoon, SK (1982);Ottawa, ON (1985); Richmond, BC (1989)

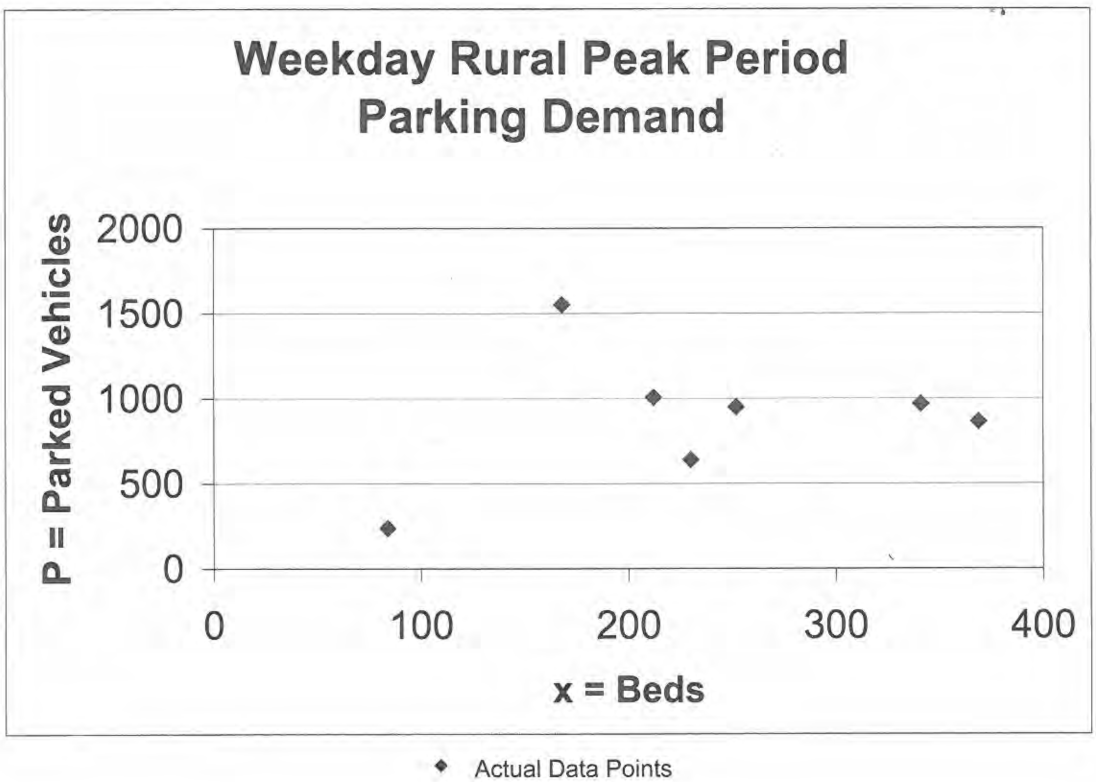
**Puerto Rico:**
Ponce, PR (1993); Caguas, PR (2000)

**United States:**
Daytona Beach, FL (1985); Lynn, MA (1985); Jacksonville, FL (1986); Columbus, OH (1990); Cumberland, MD (1990); Elgin, IL (1990); Greensburg, PA (1990); Madison, WI (1990); Milwaukee, WI (1990); New Albany, IN (1990); Pittsburgh, PA (1990); Royal Oak, MI (1990); Stuart, FL (1990); Baltimore, MD (1991); Castle, PA (1991); Charleston, WV (1991); Chicago, IL (1991); Huntsville, AL (1991); LaGrange, IL (1991); Nashville, TN (1991); New Fairmont, WV (1991); Pittsburgh, PA (1991); Vineland, NJ (1991); Durham, NC (1992); Gainesville, FL (1992); Pittsburgh, PA (1992); Springfield, OH (1992); West Palm Beach, FL (1992); Arlington Heights, IL (1993); Atlanta, GA (1993); Baltimore, MD (1993); Easton, PA (1993); Wichita, KS (1993); Sarasota, FL (1994); Jacksonville, FL (1995); Maywood, IL (1995); Evansville, IN (1996); Orlando, FL (1996); Edgewood, KY (1997); Downers Grove, IL (1998); Raleigh, NC (1998); Portsmouth, OH (1998); Templeton, CA (1998); Kankakee, IL (1999); Terre Haute, IN (1999); Walnut Creek, CA (1999); Winston-Salem, NC (1999); Atlanta, GA (2000); Columbus, GA (2000); Flagstaff, AZ (2000); Lincoln, NE (2000); Oklahoma City, OK (2000); Santa Barbara, CA (2000)

# Land Use: 610
# Hospital

## Average Peak Period Parking Demand vs: Beds
## On a: Weekday
## Location: Rural

| Statistic | Peak Period Demand |
|---|---|
| Peak Period | 9:00 a.m.–12:00 p.m.; 1:00–4:00 p.m. |
| Number of Study Sites | 7 |
| Average Size of Study Sites | 240 beds |
| Average Peak Period Parking Demand | 4.08 vehicles per bed |
| Standard Deviation | 2.41 |
| Coefficient of Variation | 59% |
| Range | 2.34–9.23 vehicles per bed |
| 85th Percentile | 5.19 vehicles per bed |
| 33rd Percentile | 2.83 vehicles per bed |



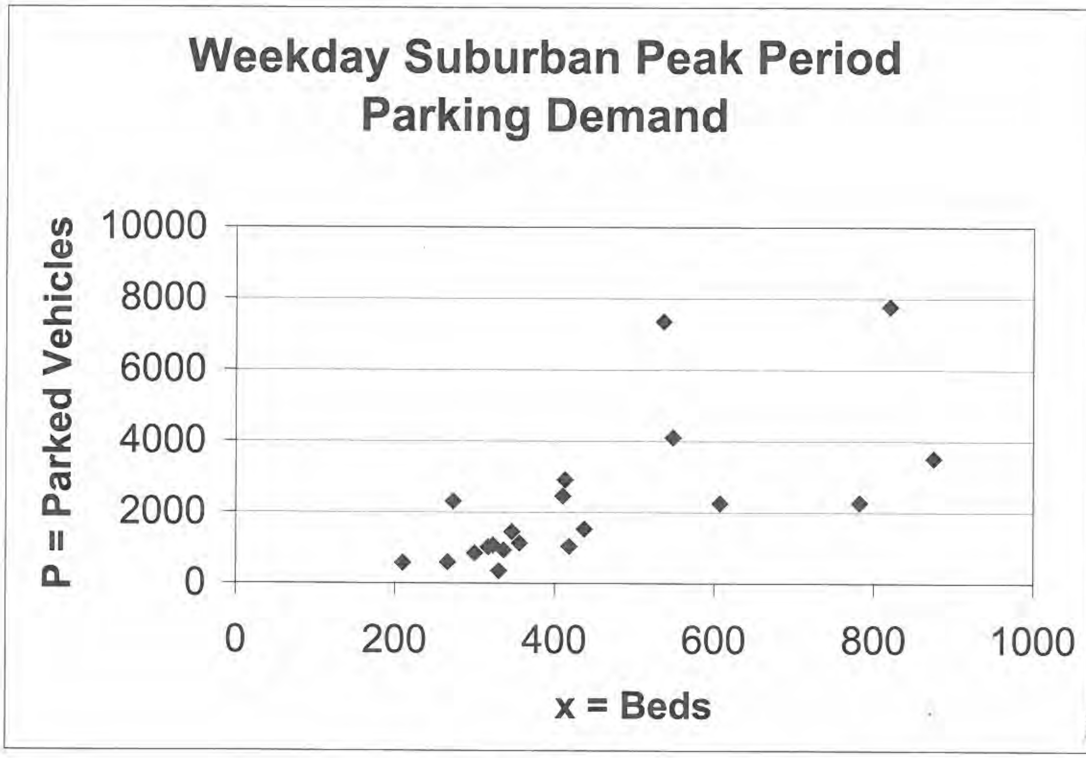



Revised E - 7

# Land Use: 610
# Hospital

### Average Peak Period Parking Demand vs: Beds
### On a: Weekday
### Location: Suburban

| Statistic | Peak Period Demand |
|---|---|
| Peak Period | 9:00 a.m.–4:00 p.m. |
| Number of Study Sites | 20 |
| Average Size of Study Sites | 440 beds |
| Average Peak Period Parking Demand | 4.72 vehicles per bed |
| Standard Deviation | 3.08 |
| Coefficient of Variation | 65% |
| 95% Confidence Interval | 3.37–6.07 vehicles per bed |
| Range | 1.06–13.71 vehicles per bed |
| 85th Percentile | 7.63 vehicles per bed |
| 33rd Percentile | 2.98 vehicles per bed |

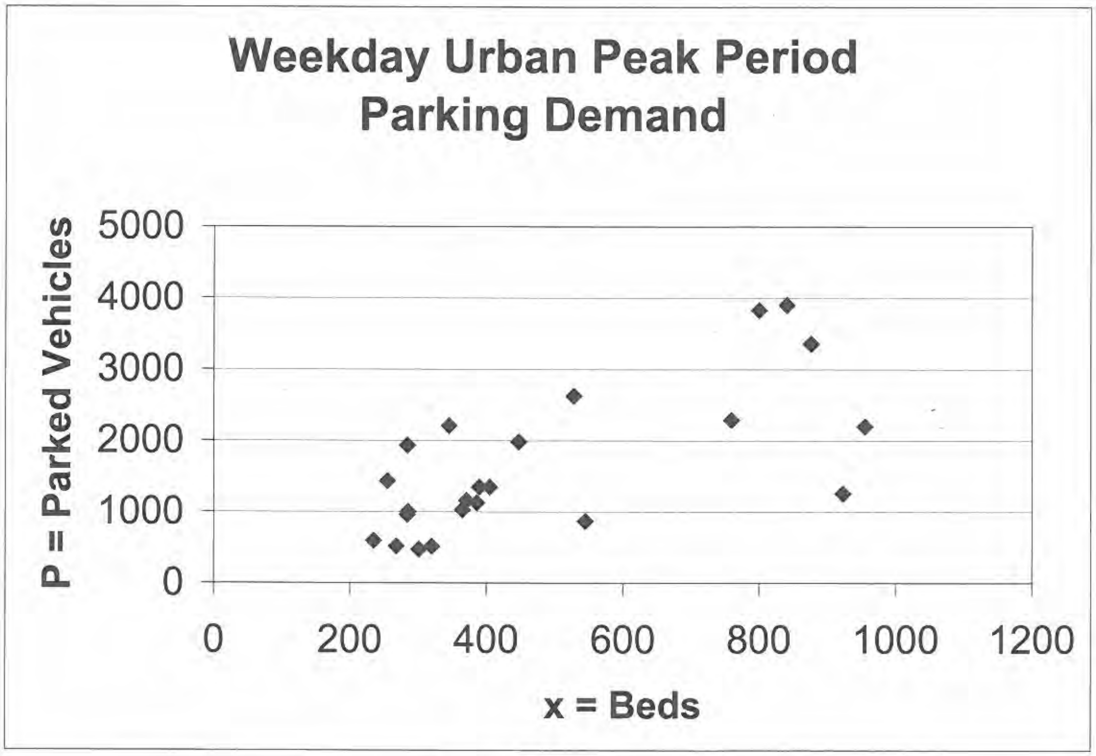



◆ Actual Data Points

# Land Use: 610
# Hospital

### Average Peak Period Parking Demand vs: Beds
### On a: Weekday
### Location: Urban

| Statistic | Peak Period Demand |
|---|---|
| Peak Period | 9:00 a.m.–4:00 p.m. |
| Number of Study Sites | 23 |
| Average Size of Study Sites | 490 beds |
| Average Peak Period Parking Demand | 3.47 vehicles per bed |
| Standard Deviation | 1.53 |
| Coefficient of Variation | 44% |
| 95% Confidence Interval | 2.84–4.10 vehicles per bed |
| Range | 1.36–6.81 vehicles per bed |
| 85th Percentile | 4.92 vehicles per bed |
| 33rd Percentile | 2.84 vehicles per bed |

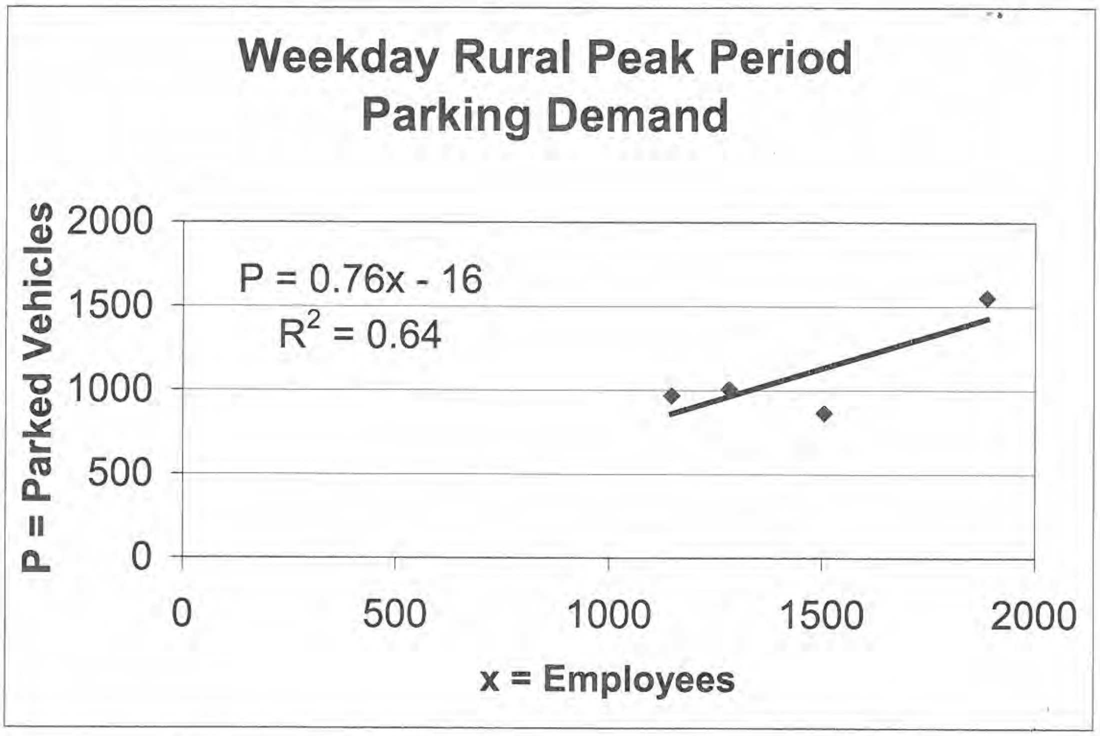



◆ Actual Data Points

# Land Use: 610
# Hospital

### Average Peak Period Parking Demand vs: Employees
### On a: Weekday
### Location: Rural

| Statistic | Peak Period Demand |
|---|---|
| Peak Period | 9:00 a.m.–12:00 p.m.; 1:00–4:00 p.m. |
| Number of Study Sites | 4 |
| Average Size of Study Sites | 1,400 employees |
| Average Peak Period Parking Demand | 0.76 vehicles per employee |
| Standard Deviation | 0.12 |
| Coefficient of Variation | 16% |
| Range | 0.57–0.84 vehicles per employee |
| 85th Percentile | 0.83 vehicles per employee |
| 33rd Percentile | 0.78 vehicles per employee |




◆ Actual Data Points —— Fitted Curve/Average Rate

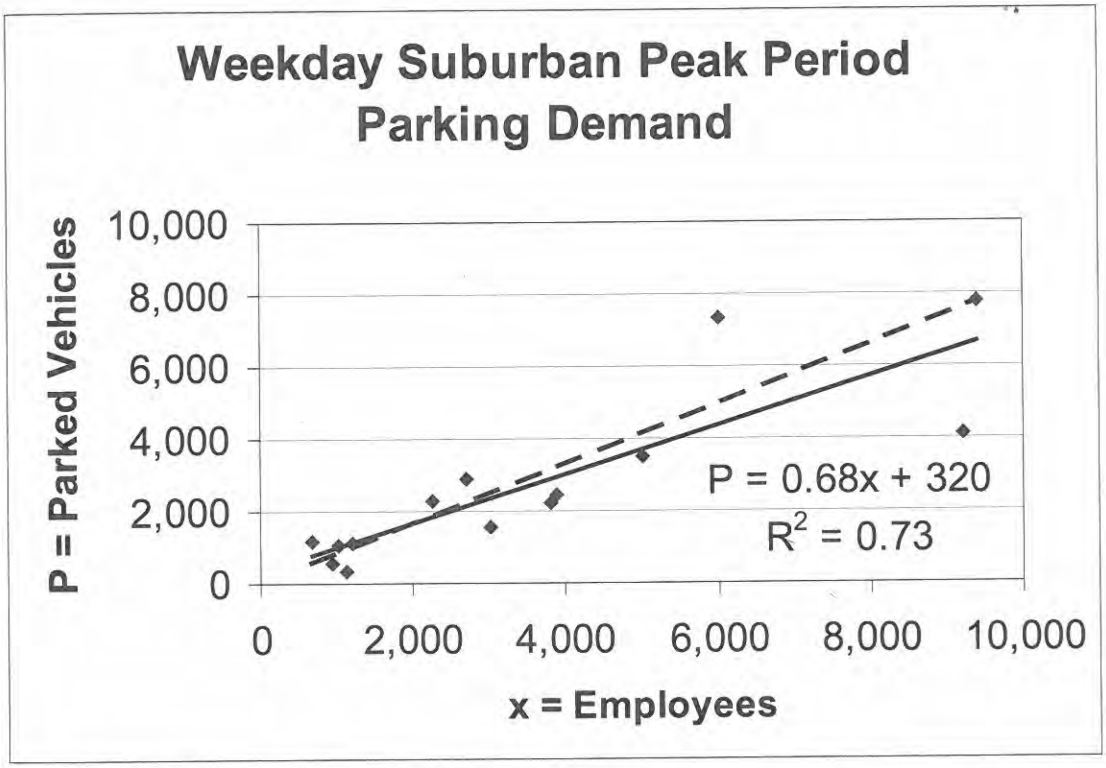


Revised E - 10

# Land Use: 610
# Hospital

### Average Peak Period Parking Demand vs: Employees
### On a: Weekday
### Location: Suburban

| Statistic | Peak Period Demand |
|---|---|
| Peak Period | 9:00 a.m.–4:00 p.m. |
| Number of Study Sites | 14 |
| Average Size of Study Sites | 3,600 employees |
| Average Peak Period Parking Demand | 0.83 vehicles per employee |
| Standard Deviation | 0.37 |
| Coefficient of Variation | 44% |
| Range | 0.31–1.71 vehicles per employee |
| 85th Percentile | 1.09 vehicles per employee |
| 33rd Percentile | 0.62 vehicles per employee |

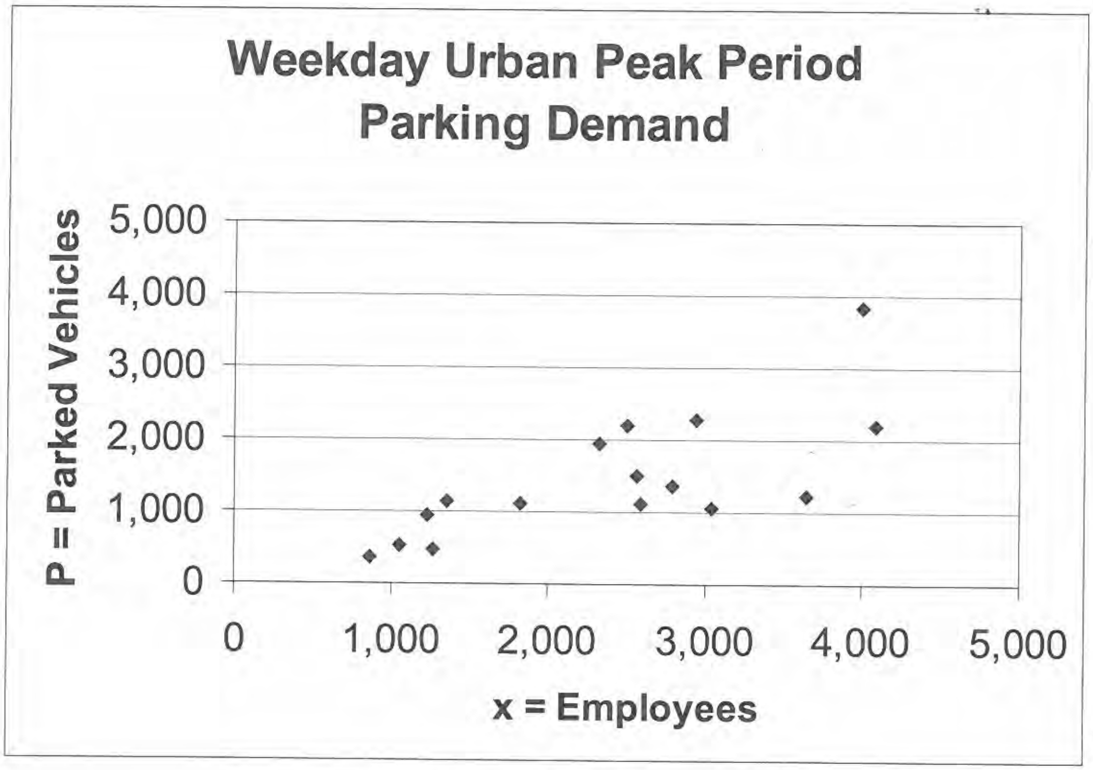



◆ Actual Data Points ——— Fitted Curve - - - - Average Rate

# Land Use: 610
# Hospital

## Average Peak Period Parking Demand vs: Employees
## On a: Weekday
## Location: Urban

| Statistic | Peak Period Demand |
|---|---|
| Peak Period | 9:00 a.m.–4:00 p.m. |
| Number of Study Sites | 16 |
| Average Size of Study Sites | 2,400 employees |
| Average Peak Period Parking Demand | 0.60 vehicles per employee |
| Standard Deviation | 0.21 |
| Coefficient of Variation | 34% |
| Range | 0.34–0.96 vehicles per employee |
| 85th Percentile | 0.83 vehicles per employee |
| 33rd Percentile | 0.48 vehicles per employee |




◆ Actual Data Points

# Land Use: 720
# Medical-Dental Office Building

## Land Use Description

A medical-dental office building is a facility that provides diagnoses and outpatient care on a routine basis, but is unable to provide prolonged in-house medical and surgical care. One or more private physicians or dentists generally operate this type of facility. Clinic (Land Use 630) is a related use.

## Database Description

The database consisted of a mix of urban and suburban sites. Parking demand rates at the suburban sites were similar to those at urban sites and therefore the data were combined and analyzed together.

- Average parking supply ratio: 3.9 spaces per 1,000 sq. ft. GFA (11 study sites).

The two study sites with weekend parking demand observations had Saturday peak demand rates 18 and 25 percent less than the weekday peak demand rates for the same study sites.

The following table presents the time-of-day distribution of parking demand, based on data from sites with at least five hours of continuous count data.

| *Based on Vehicles per 1,000 sq. ft. GFA* | ***Weekday Data*** | |
|---|---|---|
| Hour Beginning | Percent of Peak Period | Number of Data Points* |
| 12:00–4:00 a.m. | – | 0 |
| 5:00 a.m. | – | 0 |
| 6:00 a.m. | – | 0 |
| 7:00 a.m. | 15 | 2 |
| 8:00 a.m. | 49 | 2 |
| 9:00 a.m. | 84 | 7 |
| 10:00 a.m. | 100 | 8 |
| 11:00 a.m. | 100 | 8 |
| 12:00 p.m. | 88 | 8 |
| 1:00 p.m. | 79 | 8 |
| 2:00 p.m. | 86 | 7 |
| 3:00 p.m. | 96 | 7 |
| 4:00 p.m. | 91 | 6 |
| 5:00 p.m. | 72 | 1 |
| 6:00 p.m. | – | 0 |
| 7:00 p.m. | – | 0 |
| 8:00 p.m. | – | 0 |
| 9:00 p.m. | – | 0 |
| 10:00 p.m. | – | 0 |
| 11:00 p.m. | – | 0 |

* Subset of database

***Future studies should include data on the number of doctors working at a study site.***

## Study Sites/Years

**Canada:**
Coquitlam, BC (1992)

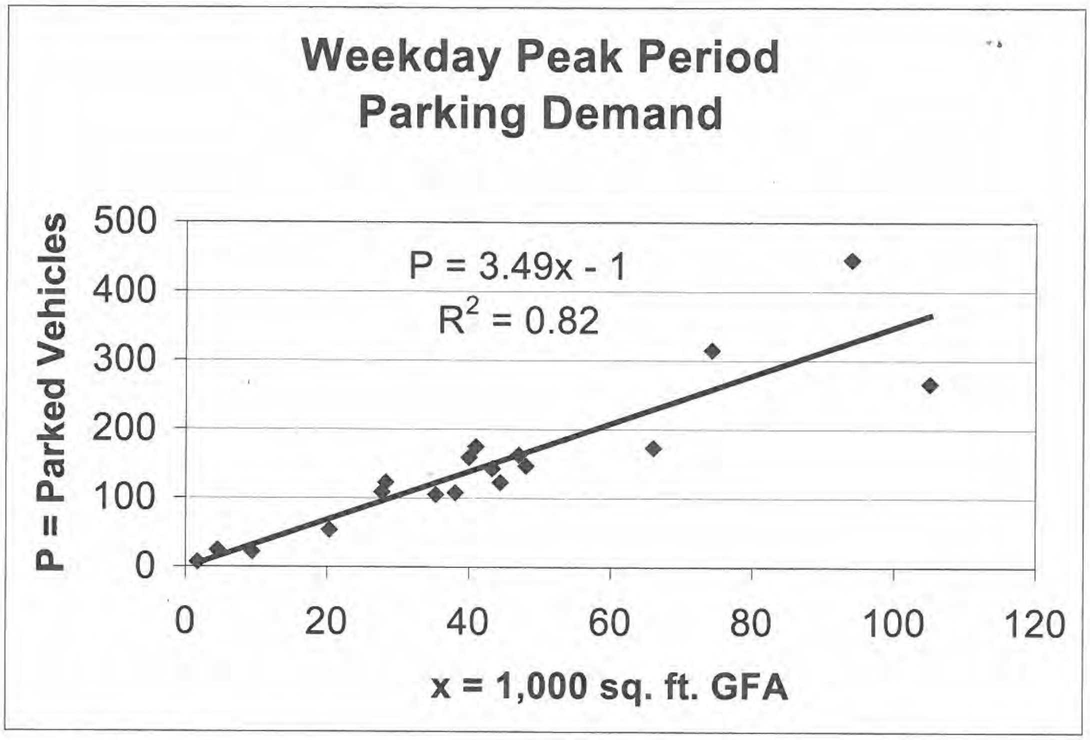
# Land Use: 720
# Medical-Dental Office Building

**United States:**
Skokie, IL (1963); Evanston, IL (1972); Munster, IN (1978); Overland Park, KS (1978); San Antonio, TX (1982); Cincinnati, OH (1986); Anaheim, CA (1988); Laguna Niguel, CA (1989); Fullerton, CA (1990); Garden Grove, CA (1990); Towson, MD (1991); Towson, MD (1992)

# Land Use: 720
# Medical-Dental Office Building

### Average Peak Period Parking Demand vs: 1,000 sq. ft. GFA
### On a: Weekday

| Statistic | Peak Period Demand |
|---|---|
| Peak Period | 10:00 a.m.–12:00 p.m.; 2:00–5:00 p.m. |
| Number of Study Sites | 18 |
| Average Size of Study Sites | 43,000 sq. ft. GFA |
| Average Peak Period Parking Demand | 3.53 vehicles per 1,000 sq. ft. GFA |
| Standard Deviation | 0.87 |
| Coefficient of Variation | 25% |
| Range | 2.34 – 5.35 vehicles per 1,000 sq. ft. GFA |
| 85th Percentile | 4.30 vehicles per 1,000 sq. ft. GFA |
| 33rd Percentile | 2.92 vehicles per 1,000 sq. ft. GFA |




◆ Actual Data Points —— Fitted Curve - - - - Average Rate

## MVHS Parking Estimates (8/27/18)

| | | |
|---|---|---|
| Total Staff: | 2,400 | Employees |
| Medical Office Building: | 80,000 | SF |

| Hospital Beds | Hospital Employees |
|---|---|
| 373 | 2,400 |

## 3rd Edition, ITE Parking Generation

| ITE Land Use Code | Description | Unit | Urban Supply/ Unit | Urban Peak Demand/ Unit | Average Size | MVHS Unit | Urban Supply | Urban Peak Demand |
|---|---|---|---|---|---|---|---|---|
| 610 | Hospital | Beds | 4 | 3.47 | 490 | 373 | 1,492 | 1,295 |
| | | Employees | 0.72 | 0.6 | 2,400 | 2,400 | 1,728 | 1,440 |

parking generation data for hospital use by SF is not provided

| ITE Land Use Code | Description | Unit | Supply/Unit | Urban | Average Size | MVHS Unit | Supply | Peak Demand |
|---|---|---|---|---|---|---|---|---|
| 720 | Medical-Dental Office | GFA (kSF) | 3.9 | 3.53 | 43 kSF | 80 | 312 | 283 |
| | | Fitted Curve Equation: | | =3.49(kSF)-1 | | | | 281 |

Data for medical-dental office buildings did not show a significant difference between urban/suburban sites

## Summary

| | ITE Urban Location |
|---|---|
| ITE Supply/Employee Rate = | 0.72 |
| ITE Demand/Employee Rate= | 0.6 |
| MVHS/MOB Supply = | 2,040 |
| MVHS/MOB Demand = | 1,723 |

Conclusions:

- To be conservative, using the parking supply & demand estimates based on number of employees b/c it yields higher numbers than per bed

- ITE estimate of needed parking supply is 2,040 spaces which includes spaces needed for the MOB

- ITE estimate of daytime average peak parking demand is 1,723 spaces which includes hospital staff, visitors, and MOB

# Land Use: 610
# Hospital

## Description

A hospital is any institution where medical or surgical care and overnight accommodations are provided to non-ambulatory and ambulatory patients. However, the term “hospital” does not refer to medical clinics (facilities that provide diagnoses and outpatient care only) or nursing homes (facilities devoted to the care of persons unable to care for themselves), which are covered elsewhere in this report. Clinic (Land Use 630) and free-standing emergency room (Land Use 650) are related uses.

## Additional Data

Time-of-day distribution data for this land use are presented in Appendix A. For the four general urban/suburban sites with data, the overall highest vehicle volumes during the AM and PM on a weekday were counted between 7:30 and 8:30 a.m. and 12:00 and 1:00 p.m., respectively.

The average numbers of person trips per vehicle trip at the four general urban/suburban sites at which both person trip and vehicle trip data were collected were as follows:

- 1.60 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 7 and 9 a.m.
- 1.60 during Weekday, AM Peak Hour of Generator
- 1.72 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 4 and 6 p.m.
- 1.66 during Weekday, PM Peak Hour of Generator

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Alberta (CAN), California, New Jersey, New York, Pennsylvania, Texas, and Washington.

## Specialized Land Use Data

A 2008 study provided data on a research hospital in Baltimore, Maryland (source 749). The trip generation characteristics of this site differed from sites included in this land use; therefore, trip generation information for this site is presented here and was excluded from the data plots. The site gross floor area is 2.8 million square feet and the number of employees is 5,500. The number of vehicle trips during the weekday, AM peak hour for adjacent street traffic was 1,168. The number of vehicle trips during the weekday, PM peak hour for adjacent street traffic was 1,080.

## Source Numbers

112, 186, 253, 262, 423, 429, 533, 573, 591, 601, 630, 719, 749, 878, 901, 904, 908, 909, 971

# Hospital
## (610)

**Vehicle Trip Ends vs:** **Beds**
**On a:** **Weekday**

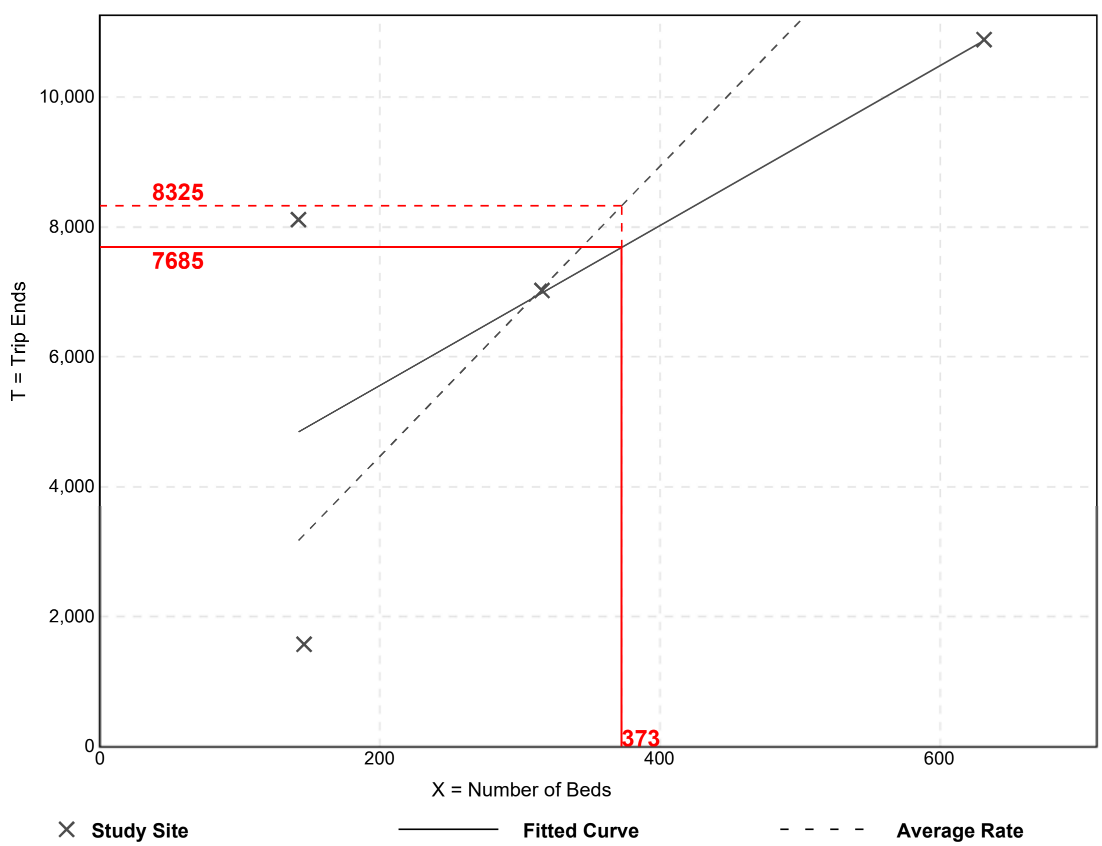
**Setting/Location:** **General Urban/Suburban**
Number of Studies: 4
Avg. Num. of Beds: 309
Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per Bed

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 22.32 | 10.77 - 57.13 | 14.98 |

## Data Plot and Equation

***Caution – Small Sample Size***




**Fitted Curve Equation: T = 12.30(X) + 3096.68**

**$R^2$= 0.53**

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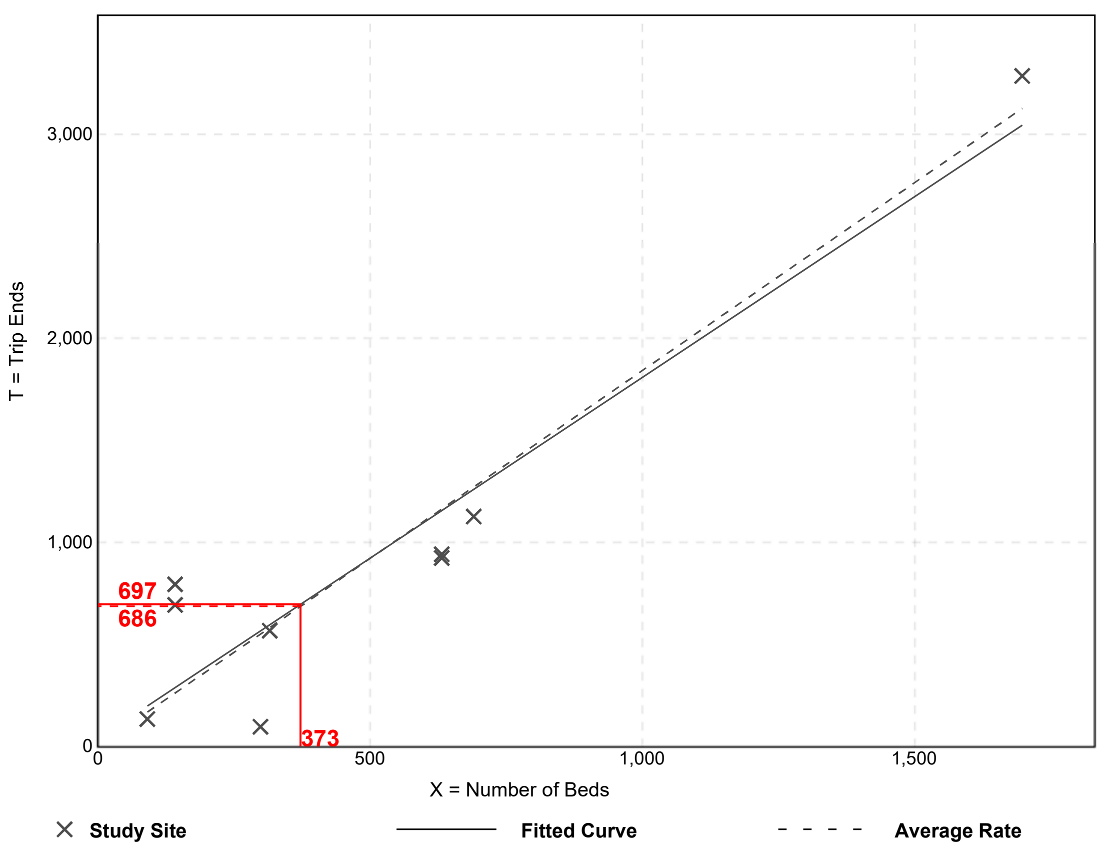
# Hospital
## (610)

**Vehicle Trip Ends vs:** **Beds**
**On a:** **Weekday,**
**Peak Hour of Adjacent Street Traffic,**
**One Hour Between 7 and 9 a.m.**
**Setting/Location:** **General Urban/Suburban**
Number of Studies: 9
Avg. Num. of Beds: 516
Directional Distribution: 72% entering, 28% exiting

## Vehicle Trip Generation per Bed

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 1.84 | 0.32 - 5.59 | 1.01 |

## Data Plot and Equation




**Fitted Curve Equation: T = 1.77(X) + 36.61** **$R^2$= 0.88**

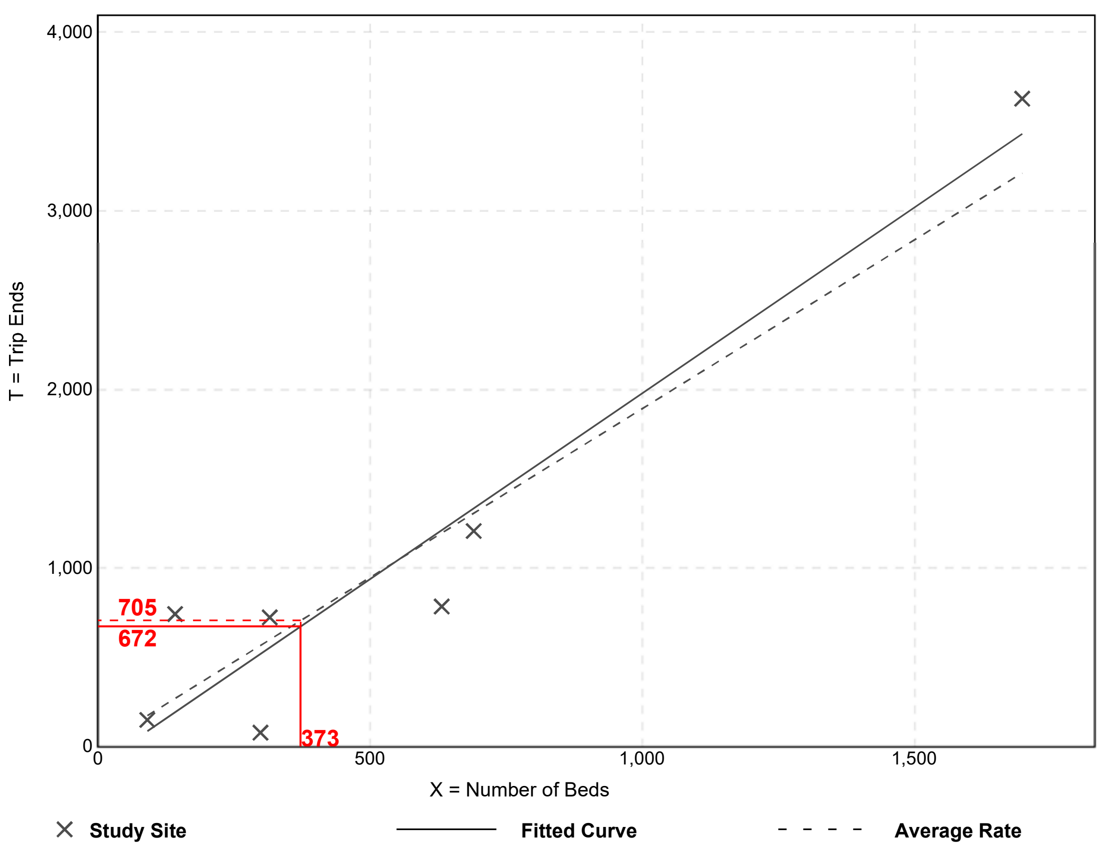
# Hospital
## (610)

| | |
|---|---|
| **Vehicle Trip Ends vs:** | **Beds** |
| **On a:** | **Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.** |
| **Setting/Location:** | **General Urban/Suburban** |
| Number of Studies: | 7 |
| Avg. Num. of Beds: | 553 |
| Directional Distribution: | 28% entering, 72% exiting |

## Vehicle Trip Generation per Bed

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 1.89 | 0.26 - 5.22 | 0.92 |

## Data Plot and Equation




**Fitted Curve Equation: T = 2.08(X) - 104.00** **$R^2$= 0.91**

# Hospital
## (610)

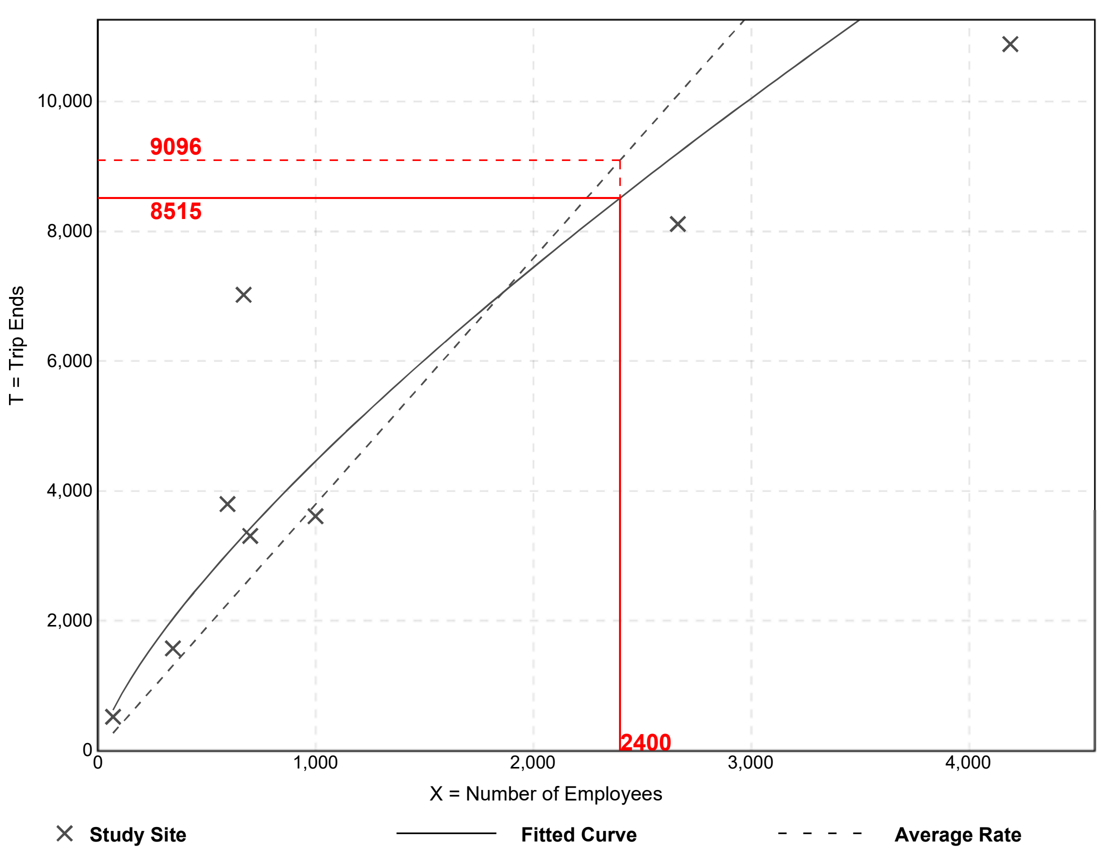
**Vehicle Trip Ends vs: Employees**
**On a: Weekday**

**Setting/Location: General Urban/Suburban**
Number of Studies: 8
Avg. Num. of Employees: 1280
Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per Employee

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 3.79 | 2.60 - 10.48 | 2.20 |

## Data Plot and Equation




**Fitted Curve Equation: Ln(T) = 0.74 Ln(X) + 3.29** **$R^2$= 0.88**

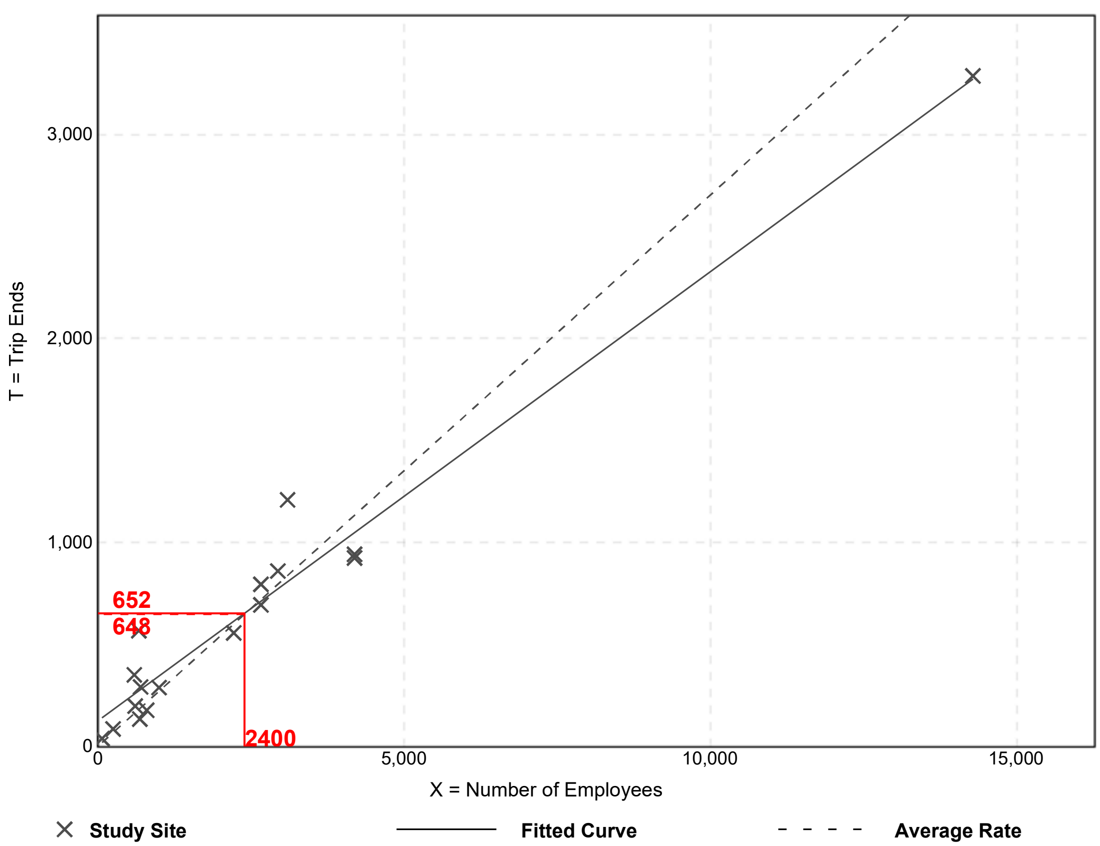
# Hospital
## (610)

| | |
|---|---|
| **Vehicle Trip Ends vs:** | **Employees** |
| **On a:** | **Weekday,** |
| | **Peak Hour of Adjacent Street Traffic,** |
| | **One Hour Between 7 and 9 a.m.** |
| **Setting/Location:** | **General Urban/Suburban** |
| Number of Studies: | 17 |
| Avg. Num. of Employees: | 2450 |
| Directional Distribution: | 73% entering, 27% exiting |

## Vehicle Trip Generation per Employee

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 0.27 | 0.20 - 0.85 | 0.10 |

## Data Plot and Equation




**Fitted Curve Equation: $T = 0.22(X) + 123.99$** **$R^2 = 0.96$**

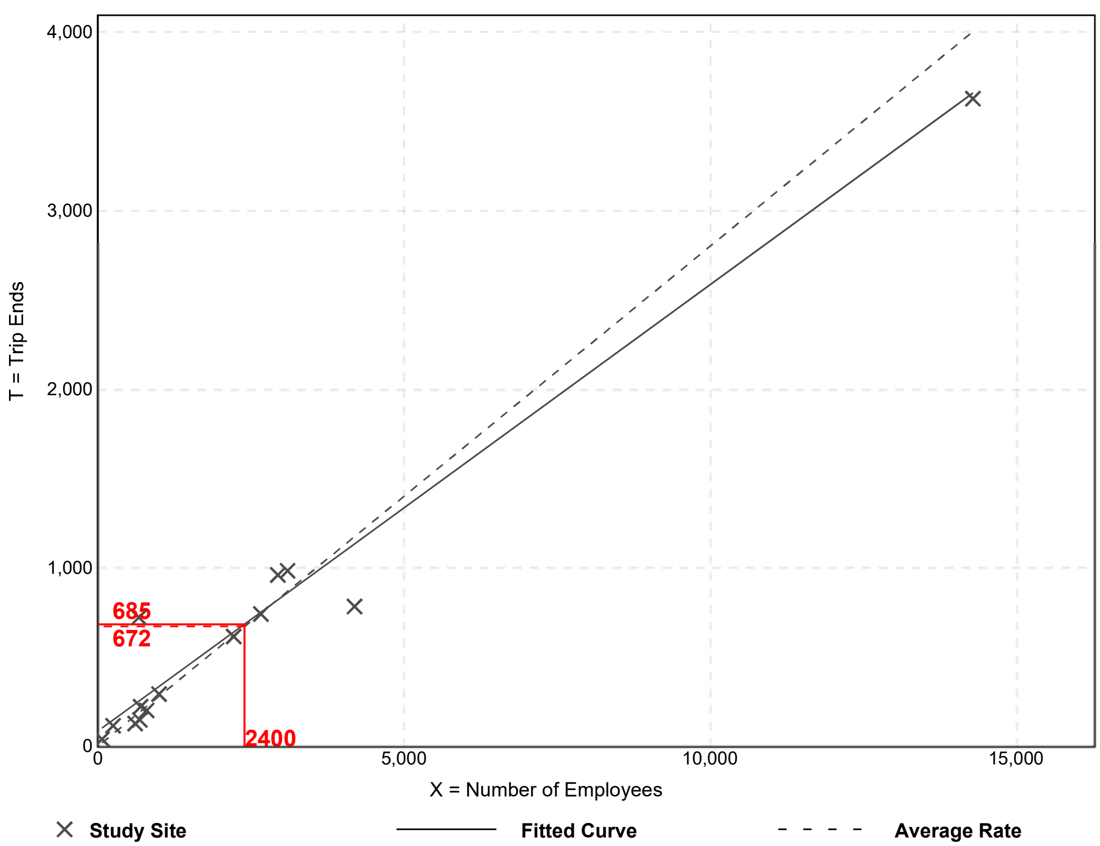
# Hospital
(610)

| | |
|---|---|
| **Vehicle Trip Ends vs:** | **Employees** |
| **On a:** | **Weekday,** <br> **Peak Hour of Adjacent Street Traffic,** <br> **One Hour Between 4 and 6 p.m.** |
| **Setting/Location:** | **General Urban/Suburban** |
| Number of Studies: | 14 |
| Avg. Num. of Employees: | 2443 |
| Directional Distribution: | 27% entering, 73% exiting |

## Vehicle Trip Generation per Employee

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 0.28 | 0.19 - 1.08 | 0.13 |

## Data Plot and Equation




**Fitted Curve Equation: T = 0.25(X) + 84.69** **$R^2$= 0.96**

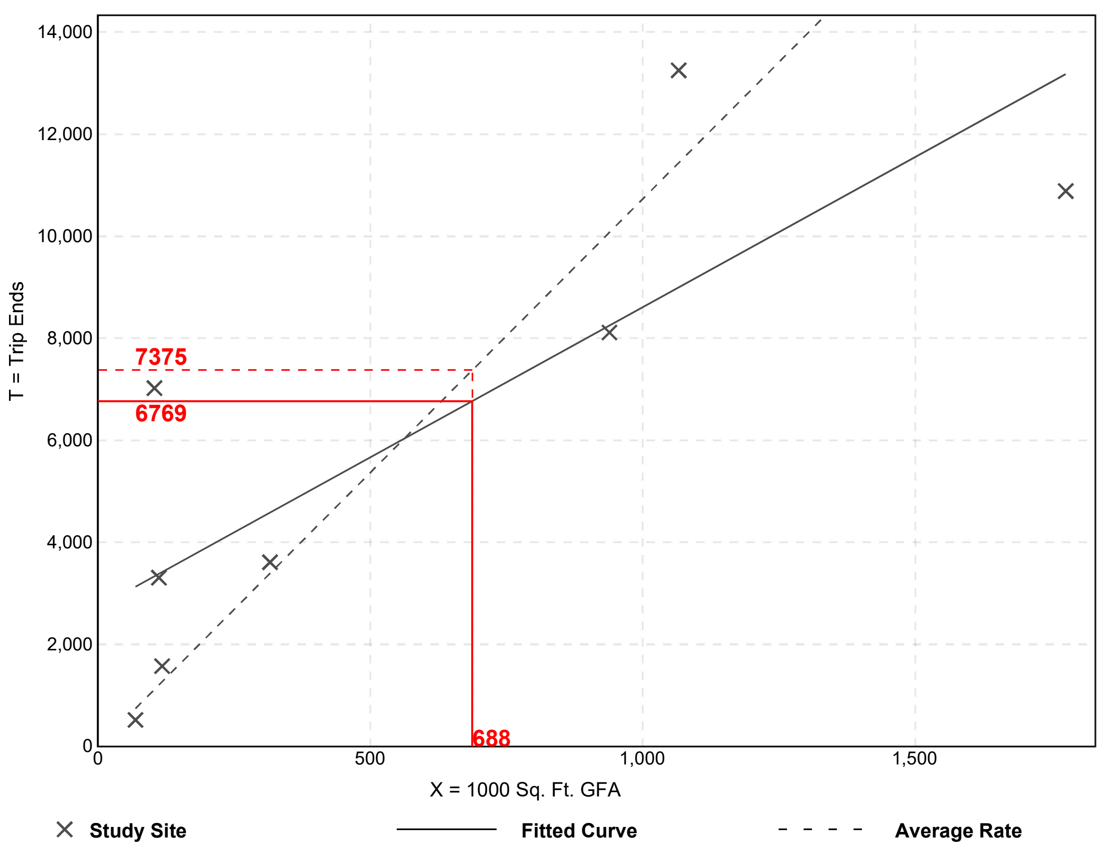
# Hospital
(610)

| | |
|---|---|
| **Vehicle Trip Ends vs:** | **1000 Sq. Ft. GFA** |
| **On a:** | **Weekday** |
| **Setting/Location:** | **General Urban/Suburban** |
| Number of Studies: | 8 |
| Avg. 1000 Sq. Ft. GFA: | 563 |
| Directional Distribution: | 50% entering, 50% exiting |

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 10.72 | 6.12 - 67.52 | 10.34 |

## Data Plot and Equation




**Fitted Curve Equation: T = 5.88(X) + 2723.70** **$R^2$= 0.67**

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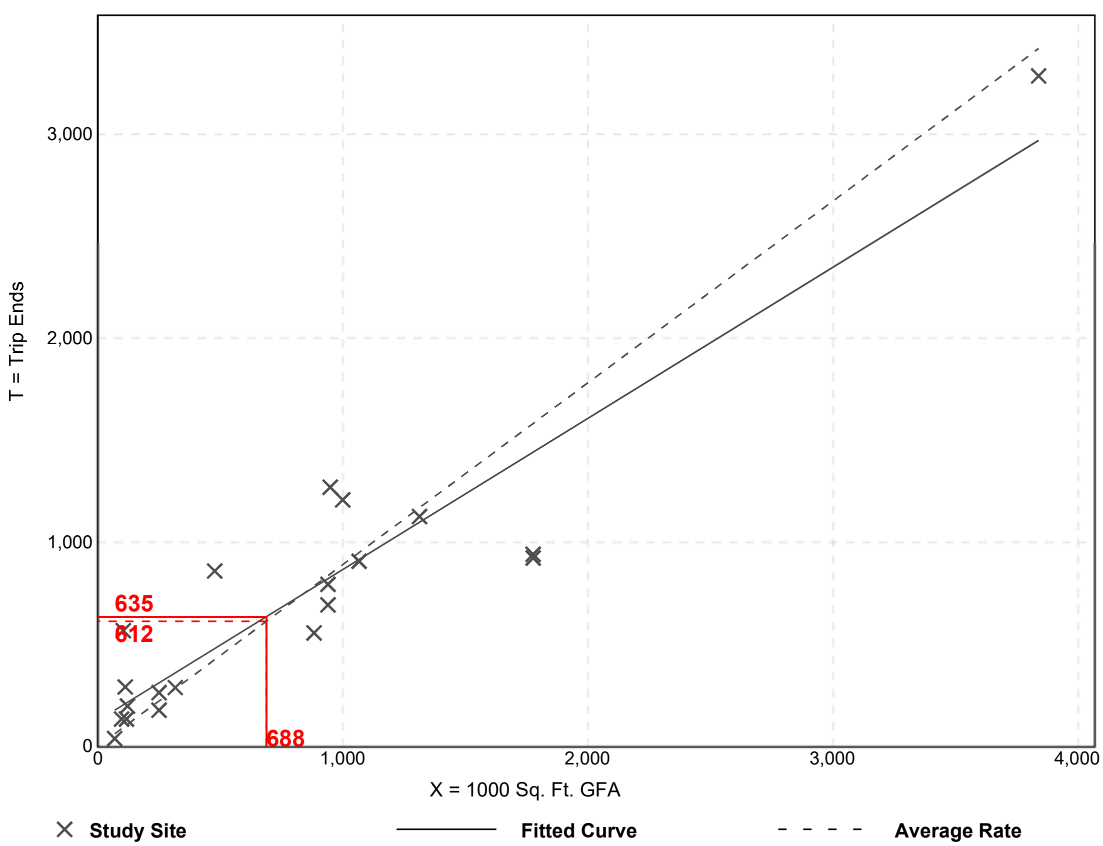
# Hospital
(610)

| | |
|---|---|
| **Vehicle Trip Ends vs:** | **1000 Sq. Ft. GFA** |
| **On a:** | **Weekday,** |
| | **Peak Hour of Adjacent Street Traffic,** |
| | **One Hour Between 7 and 9 a.m.** |
| **Setting/Location:** | **General Urban/Suburban** |
| Number of Studies: | 20 |
| Avg. 1000 Sq. Ft. GFA: | 820 |
| Directional Distribution: | 68% entering, 32% exiting |

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 0.89 | 0.52 - 5.45 | 0.50 |

## Data Plot and Equation




**Fitted Curve Equation: T = 0.74(X) + 126.36** **$R^2$= 0.86**

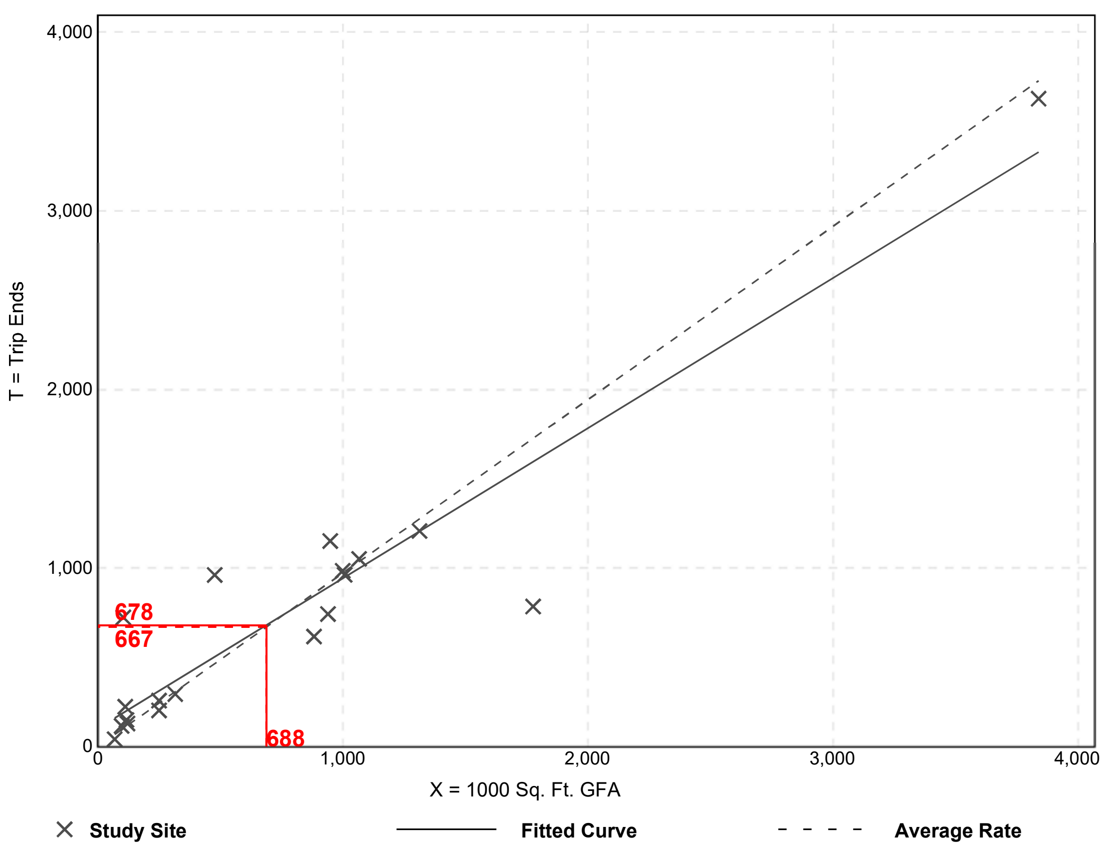
# Hospital
## (610)

| | |
|---|---|
| **Vehicle Trip Ends vs:** | **1000 Sq. Ft. GFA** |
| **On a:** | **Weekday,** |
| | **Peak Hour of Adjacent Street Traffic,** |
| | **One Hour Between 4 and 6 p.m.** |
| **Setting/Location:** | **General Urban/Suburban** |
| Number of Studies: | 19 |
| Avg. 1000 Sq. Ft. GFA: | 773 |
| Directional Distribution: | 32% entering, 68% exiting |

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 0.97 | 0.44 - 6.94 | 0.60 |

## Data Plot and Equation




**Fitted Curve Equation: T = 0.84(X) + 100.56** **$R^2$= 0.88**

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# Land Use: 720
# Medical-Dental Office Building

## Description

A medical-dental office building is a facility that provides diagnoses and outpatient care on a routine basis but is unable to provide prolonged in-house medical and surgical care. One or more private physicians or dentists generally operate this type of facility. Clinic (Land Use 630) is a related use.

## Additional Data

Time-of-day distribution data for this land use for a weekday, Saturday, and Sunday are presented in Appendix A. For the 19 general urban/suburban sites with data, the overall highest vehicle volumes during the AM and PM on a weekday were counted between 9:30 and 10:30 a.m. and 2:15 and 3:15 p.m., respectively.

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Alberta (CAN), California, Connecticut, Kentucky, Maryland, Minnesota, New Jersey, New York, Ohio, Oregon, Pennsylvania, South Dakota, Texas, Virginia, Washington, and Wisconsin.

## Source Numbers

104, 109, 120, 157, 184, 209, 211, 253, 287, 294, 295, 304, 357, 384, 404, 407, 423, 444, 509, 601, 715, 867, 879, 901, 902, 908, 959, 972

# Medical-Dental Office Building
(720)

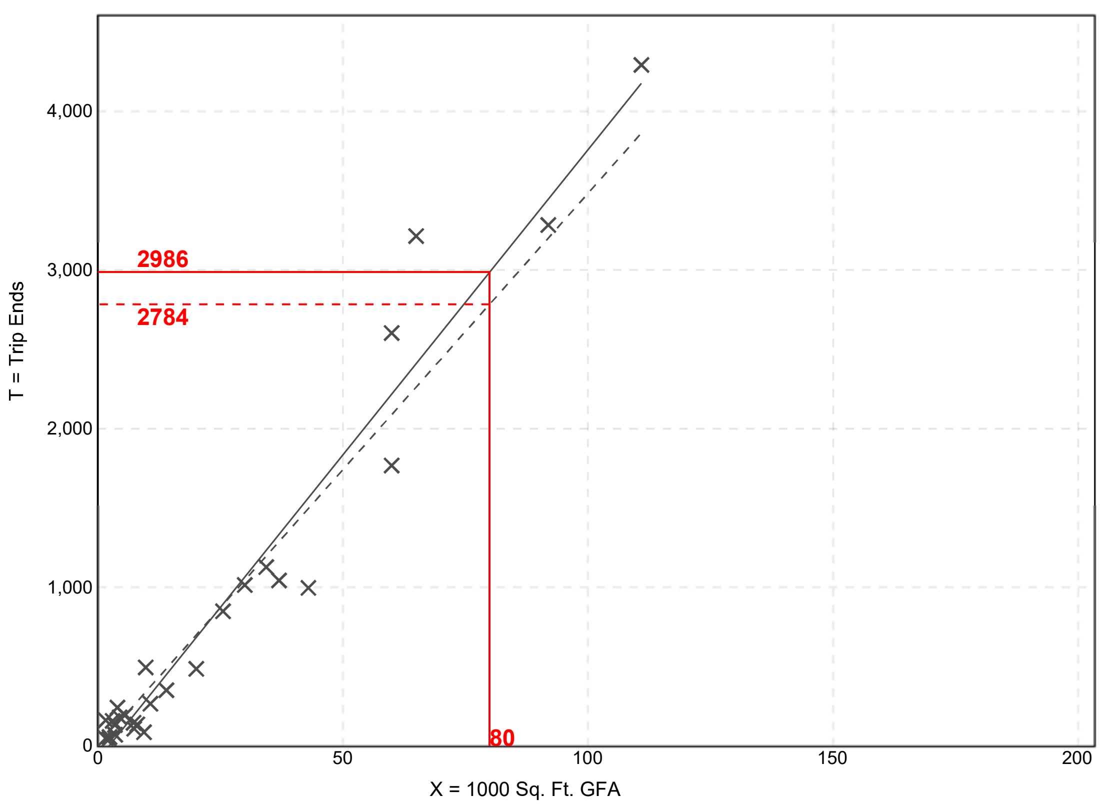
| | |
|---|---|
| **Vehicle Trip Ends vs:** | **1000 Sq. Ft. GFA** |
| **On a:** | **Weekday** |

| | |
|---|---|
| **Setting/Location:** | **General Urban/Suburban** |
| Number of Studies: | 28 |
| Avg. 1000 Sq. Ft. GFA: | 24 |
| Directional Distribution: | 50% entering, 50% exiting |

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 34.80 | 9.14 - 100.75 | 9.79 |

## Data Plot and Equation




× **Study Site** —— **Fitted Curve** - - - - **Average Rate**

**Fitted Curve Equation: T = 38.42(X) - 87.62** **$R^2$= 0.95**

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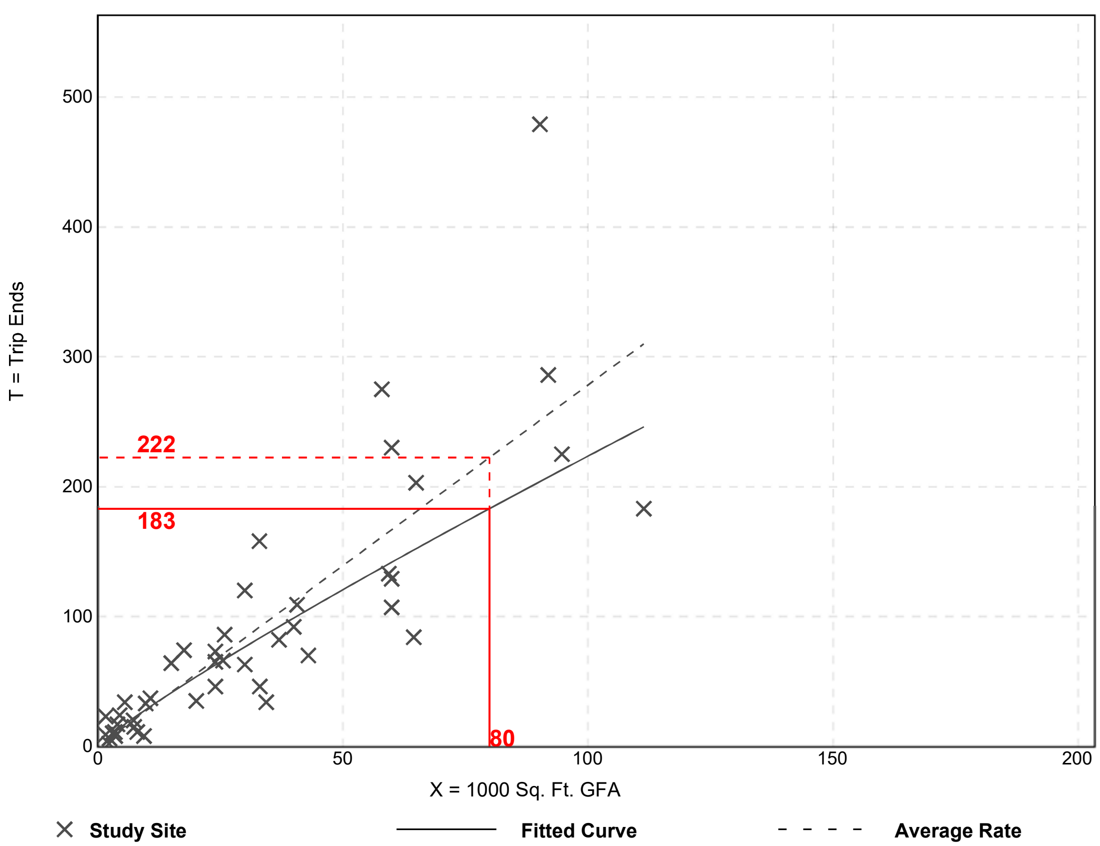
# Medical-Dental Office Building
## (720)

| | |
|---|---|
| **Vehicle Trip Ends vs:** | **1000 Sq. Ft. GFA** |
| **On a:** | **Weekday,** |
| | **Peak Hour of Adjacent Street Traffic,** |
| | **One Hour Between 7 and 9 a.m.** |
| **Setting/Location:** | **General Urban/Suburban** |
| Number of Studies: | 44 |
| Avg. 1000 Sq. Ft. GFA: | 32 |
| Directional Distribution: | 78% entering, 22% exiting |

### Vehicle Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 2.78 | 0.85 - 14.30 | 1.28 |

### Data Plot and Equation




**Fitted Curve Equation: Ln(T) = 0.89 Ln(X) + 1.31** **$R^2$= 0.80**

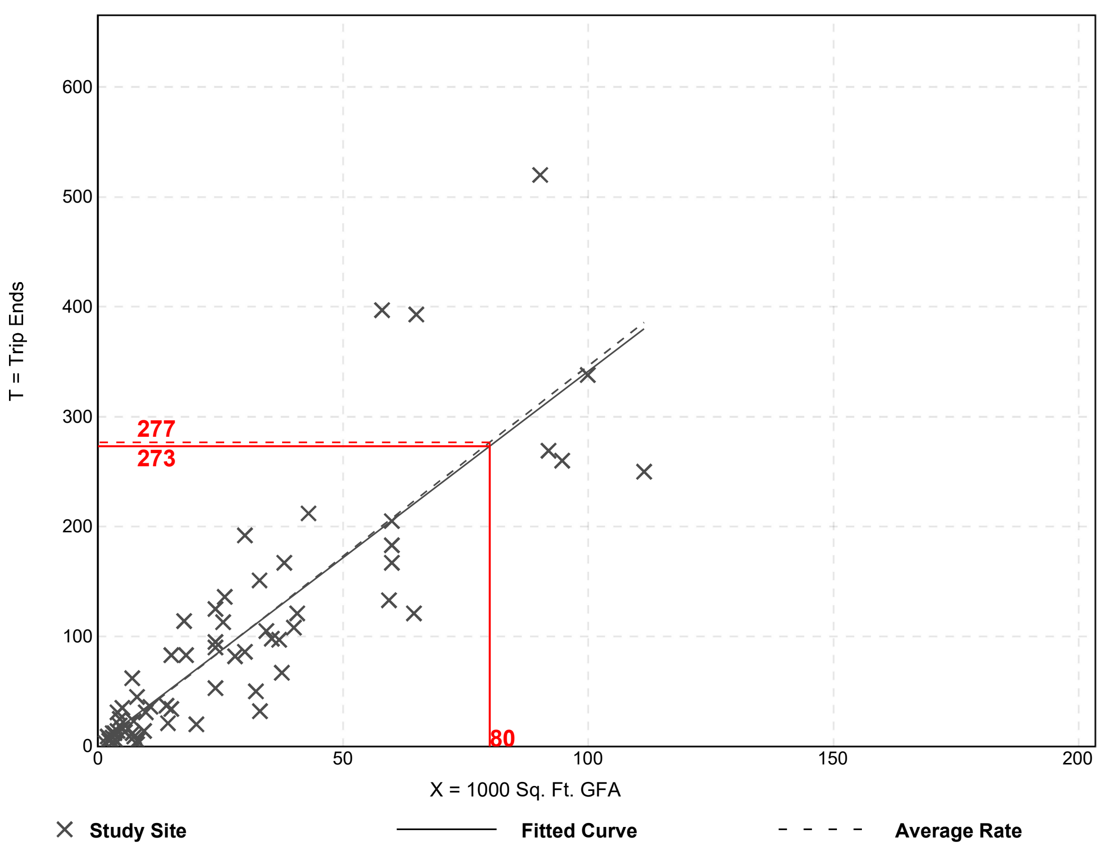
# Medical-Dental Office Building
## (720)

| | |
|---|---|
| **Vehicle Trip Ends vs:** | **1000 Sq. Ft. GFA** |
| **On a:** | **Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.** |
| **Setting/Location:** | **General Urban/Suburban** |
| Number of Studies: | 65 |
| Avg. 1000 Sq. Ft. GFA: | 28 |
| Directional Distribution: | 28% entering, 72% exiting |

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 3.46 | 0.25 - 8.86 | 1.58 |

## Data Plot and Equation




**Fitted Curve Equation: T = 3.39(X) + 2.02** **$R^2$= 0.73**

*Trip Generation Manual,* 10th Edition ● Institute of Transportation Engineers

Trip Generation Estimates
Trip Generation Manual, 10th Edition

see this file for detailed information on the trip generation estimates
All estimates based on fitted curve equation results

ITE Code 610: Hospital

| Based on 373 Beds | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Weekday | | | AM Peak Hour | | | PM Peak Hour | | |
| Entering | Exiting | Total | Entering | Exiting | Total | Entering | Exiting | Total |
| 3,843 | 3,842 | 7,685 | 502 | 195 | 697 | 188 | 484 | 672 |

| Based on 2,400 Employees | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Weekday | | | AM Peak Hour | | | PM Peak Hour | | |
| Entering | Exiting | Total | Entering | Exiting | Total | Entering | Exiting | Total |
| 4,258 | 4,257 | 8,515 | 476 | 176 | 652 | 185 | 500 | 685 |

| Based on 688,000 SF | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Weekday | | | AM Peak Hour | | | PM Peak Hour | | |
| Entering | Exiting | Total | Entering | Exiting | Total | Entering | Exiting | Total |
| 3,385 | 3,384 | 6,769 | 432 | 203 | 635 | 217 | 461 | 678 |

ITE Code 720: Medical/Dental Office Building

| Based on 80,000 SF | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Weekday | | | AM Peak Hour | | | PM Peak Hour | | |
| Entering | Exiting | Total | Entering | Exiting | Total | Entering | Exiting | Total |
| 1,493 | 1,493 | 2,986 | 143 | 40 | 183 | 76 | 197 | 273 |

| **Total Project Trip Generation** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Weekday | | | AM Peak Hour | | | PM Peak Hour | | |
| Entering | Exiting | Total | Entering | Exiting | Total | Entering | Exiting | Total |
| 5,751 | 5,750 | 11,501 | 619 | 216 | 835 | 261 | 697 | 958 |

Notes:

The standard deviation for the weekday peak period data by number of beds was approximately 1, much higher than those for results based on employees or SF

Since estimates based on number of employees is more conservative than those based on SF, results based on number of employees was used in analysis

All estimates are based on fitted curve equation results

To be conservative and due to the high drive alone share for the area (83%), these trips will not be adjusted for mode share (transit, carpool, etc).

Mode share data

GTS Consulting
1396 White Bridge Road
Chittenango, NY 13037
Tel: (315) 391-5110 Fax: (315) 687-6267

March 28, 2016

O'Brien & Gere
101 First Street – 4th Floor
Utica, NY 13501

Attn: Mr. Paul Romano, P.E.

**Re: Trip Generation and Distribution Estimates – Proposed MVHS Hospital Facility**
**Oriskany Street, Utica, NY**

Dear Mr. Romano:

I have completed my preliminary review of the proposed MVHS development on Oriskany Street in Utica, NY, and have developed trip generation and distribution estimates for a typical weekday morning and evening peak hour. The following summarizes the work completed and methodology in developing these estimates.

***These estimates have been revised per email comments received from NYSDOT on March 11th and 21st, 2016***

*Project Understanding*

The proposed MVHS development is located on the south side of Oriskany Street (Route 5S), immediately east of State Street, with the primary facility extending east to Broadway and south to Columbia Street. Oriskany Street is Route 5S to the east of the Route 5/8/12 overpass and Route 5A to the west of the Route 5/8/12 overpass. The full build out of the development is anticipated to include a 930,000 SF hospital with a separate 80,000 SF physician's office building. The project will result in the closure of Lafayette Street between Broadway and State Street, and Cornelia Street between Oriskany Street and Columbia Street, however all other roadways will remain as they are today. Access to the site will be provided via connections to State Street, Broadway Street, and Columbia Street. There is an assumed limited access driveway to Oriskany Street opposite Cornelia Street as east/west left turns are not allowed at this location under existing conditions.

Aerial overlay images showing the location of the development and parking areas as well as primary access routes, provided by Hammes Company, have been attached.

*Trip Generation Estimate*

The proposed MVHS development includes a 930,000 SF hospital and an 80,000 SF separate physician's office building. The hospital is expected to employee a total of 3,645 people between the various shifts, including full and part-time positions. Trips generated by the proposed development were estimated using the ITE Trip Generation, 9th Edition, which is the industry accepted standard for estimating traffic generated by new developments. Land Use 610 – Hospital and Land Use 720 – Medical/Dental Office Building were used. The trip generation estimates were prepared based on both the square footage of the hospital as well as the number of anticipated employees for comparison purposes. The following tables summarizes the trip generation estimates prepared for the proposed MVHS development in Utica, NY.

**Re:** **Trip Generation and Distribution Estimate – Proposed MVHS Hospital Facility
Oriskany Street, Utica, NY**

**Trip Generation Summary – Using Hospital Square Footage**

| | **Weekday Morning Peak** | | **Weekday Evening Peak** | |
|---|---|---|---|---|
| | **Entering** | **Exiting** | **Entering** | **Exiting** |
| Hospital – 930,000 SF | 557 | 327 | 329 | 536 |
| Medical Office Building – 80,000 SF | 151 | 40 | 80 | 206 |
| **Total Trips Generated** | **708** | **367** | **409** | **742** |

**Trip Generation Summary – Using Hospital Number of Employees**

| | **Weekday Morning Peak** | | **Weekday Evening Peak** | |
|---|---|---|---|---|
| | **Entering** | **Exiting** | **Entering** | **Exiting** |
| Hospital – 930,000 SF | 814 | 316 | 307 | 750 |
| Medical Office Building – 80,000 SF | 151 | 40 | 80 | 206 |
| **Total Trips Generated** | **965** | **356** | **387** | **956** |

The detailed trip generation calculations have been attached.

The more conservative trip generation estimate based on the number of employees was used to further evaluate the potential traffic volume increases on the adjacent streets in order to provide a worst case evaluation of potential impacts.

*Trip Distribution*

Hammes Company provided detailed data on staffing and patient origins by zip code in the region, which has been attached for reference. The data accounts for approximately 90% of the overall origins for staff and patients anticipated to use the new MVHS site on Oriskany Street. This data was adjusted proportionately to represent 100% of the traffic generated by each patients and employees, and then a weighted average was taken to estimate the total percentage of traffic that would be generated by the overall development to/from each zip code in the area.

The primary access routes to/from the development are the North-South Arterial (Routes 5/8/12) to the north and south, Oriskany Street to the east and west, and Genesee Street to the north and south. The following provides a summary of how traffic from each zip code was assumed to access the site via these primary routes:

| **Zip Code** | **Location** | **Origin-Dest. Percentage** | **Distribution** |
|---|---|---|---|
| 13501 | East Utica | 23.4% | 30% Genesee NB to State, 25% Genesee NB to Columbia, 15% Route 5/8/12 NB, 10% John NB to Route 5S, 10% $2^{nd}$ NB to Route 5S, 10% Route 5S WB |
| 13502 | West Utica | 19.7% | 35% Genesee SB, 25% 5/8/12 NB, 20% 5/8/12 SB, 10% Genesee NB to State, 10% Route 5A WB |
| 13413 | New Hartford | 8.5% | 90% Route 5/8/12 NB, 10% Genesee NB to State |
| 13440 | Rome | 7.7% | 40% Route 69 to Route 5A EB, 40% Route 49 to Route 5/8/12 SB, 20% I-90 to Genesee SB |
| 13323 | Clinton | 5.3% | 100% Route 5/8/12 NB |

**Re: Trip Generation and Distribution Estimate – Proposed MVHS Hospital Facility**
**Oriskany Street, Utica, NY**

| | | | |
|---|---|---|---|
| 13357 | Ilion | 4.5% | 90% Route 5S WB, 10% I-90 to Genesee SB |
| 13492 | Whitesboro | 4.9% | 90% Route 5A EB, 10% Route 840 to Route 5/8/12 NB |
| 13350 | Herkimer | 3.5% | 80% Route 5S WB, 20% I-90 to Genesee SB |
| 13340 | Frankfort | 3.2% | 90% Route 5S WB, 10% Route 5 to Genesee SB |
| 13309 | Boonville | 1.9% | 100% Route 5/8/12 SB |
| 13403 | Marcy | 2.1% | 100% Route 5/8/12 SB |
| 13417 | New York Mills | 1.8% | 50% Route 5/8/12 NB, 50% Route 5A EB |
| 13365 | Little Falls | 1.7% | 50% Route 5S WB, 30% Route 5 to Genesee SB, 20% I-90 to Genesee SB |
| 13407 | Mohawk | 1.5% | 80% Route 5S WB, 20% I-90 to Genesee SB |
| 13456 | Sauqoit | 1.7% | 100% Route 5/8/12 NB |
| 13438 | Remsen | 1.6% | 100% Route 5/8/12 SB |
| 13424 | Oriskany | 1.3% | 100% Route 5A EB |
| 13421 | Oneida | 1.2% | 70% Route 5A EB, 30% I-90 to Genesee SB |
| 13480 | Waterville | 1.2% | 100% Route 5/8/12 NB |
| 13495 | Yorkville | 1.2% | 100 % Route 5A EB |
| 13491 | West Winfield | 1.0% | 60% Route 5/8/12 NB, 40% Route 5S WB |
| 13354 | Holland Patent | 1.1% | 100% Route 5/8/12 SB |

The attached " MVHS – Traffic Distribution Forecast – Primary Routes" provides an overall summary of the weighted percentages by zip code and resulting percentages of overall traffic generated expected to use each primary route.

Based on the calculations, 26.2% of the total trips generated are expected to travel to/from the south on Route 5/8/12, 19.1% is expected to travel to/from east on Route 5S (with 2.3% via John Street and 2.3% via 2nd Street), 15.9% is expected to travel to/from the south on Genesee Street, 13.7% is expected to travel to/from the west on Route 5A, 13.7% is expected to travel to/from the north on Route 5/8/12, and 11.4% is expected to travel to/from the north on Genesee Street.

Locally, traffic traveling to/from the north via Genesee Street is expected to use Columbia Street to access the site while traffic traveling to/from the south on Genesee Street is expected to be split with approximately 66% using State Street and 34% using Columbia Street to access the site. Traffic entering from the west via Route 5A is expected to be split with approximately 30% using Columbia Street (via the Varick Street ramp, 53% using State Street, 11% using 15% using the parking area opposite Cornelia Street and 10% using Broadway to access the site. Traffic exiting to the west via Route 5A is expected to be split with 80% using Broadway and 20% using Columbia Street to leave the site. Traffic entering from the north on Route 5/8/12 is expected to be split with 75% using State Street, 15% using the parking opposite Cornelia Street and 10% using Broadway. Traffic exiting to the north via Route 5/8/12 is expected to be split with 80% using State Street and 20% using Broadway to leave the site. Traffic traveling to/from the south via Route 5/8/12 is expected to be split with 60% using the Court Street interchange via State Street and 40% using the Oriskany Street interchange. The anticipated arrival/departure distribution of traffic for the proposed MVHS development is shown in the attached Figure 1.

The trips generated were distributed through the local intersections based on the arrival/departure distribution and are shown in the attached Figure 2 for the weekday morning peak hour and Figure 3 for the weekday evening peak hour.

**Re: Trip Generation and Distribution Estimate – Proposed MVHS Hospital Facility
Oriskany Street, Utica, NY**

If you have any questions or need additional information, please call.

Sincerely,

Gordon T. Stansbury, P.E., P.T.O.E.
GTS Consulting

Attachments: Trip Generation Estimate
MVHS – Traffic Distribution Forecast – Primary Routes
Trip Distribution Figure 1 & Trips Generated – Morning/Evening Peak Hour – Figures 2 & 3
Hammes Company Parking & Access Figures
Hammes Company – Patient / Staff Origin Data by Zip Code

# Proposed MVHS, Utica, NY

## Trip Generation Estimate

| | | |
|---|---|---|
| Proposed Development | 930,000 SF Hospital (3,645 Employees) | |
| | 80,000 SF Physicians Office Building | |

***ITE Trip Generation - 9th Edition***

| | | | |
|---|---|---|---|
| <u>Land Use 610 - Hospital</u> | | | |
| AM Peak Hour | 0.95 Trips/1,000 SF | 63% Enter | 37% Exit |
| PM Peak Hour | 0.93 Trips/1,000 SF | 38% Enter | 62% Exit |
| | | | |
| AM Peak Hour | 0.31 Trips/Employee | 72% Enter | 28% Exit |
| PM Peak Hour | 0.29 Trips/Employee | 29% Enter | 71% Exit |
| | | | |
| <u>Land Use 720 - Medical / Dental Office Building</u> | | | |
| AM Peak Hour | 2.39 Trips/1,000 SF | 79% Enter | 21% Exit |
| PM Peak Hour | 3.57 Trips/1,000 SF | 28% Enter | 72% Exit |

**Trip Generation Summary - Proposed MVHS - Using Square Footage**

| | | Morning Peak Hour | | | Evening Peak Hour | | |
|---|---|---|---|---|---|---|---|
| **Development** | **Size** | **Total Trips** | **Entering** | **Exiting** | **Total Trips** | **Entering** | **Exiting** |
| Hospital | 930,000 SF | 884 | 557 | 327 | 865 | 329 | 536 |
| Physician Office Bldg. | 80,000 SF | 191 | 151 | 40 | 286 | 80 | 206 |
| **Total Trips Generated** | | **1075** | **708** | **367** | **1151** | **409** | **742** |

**Trip Generation Summary - Proposed MVHS - Using Number of Employees**

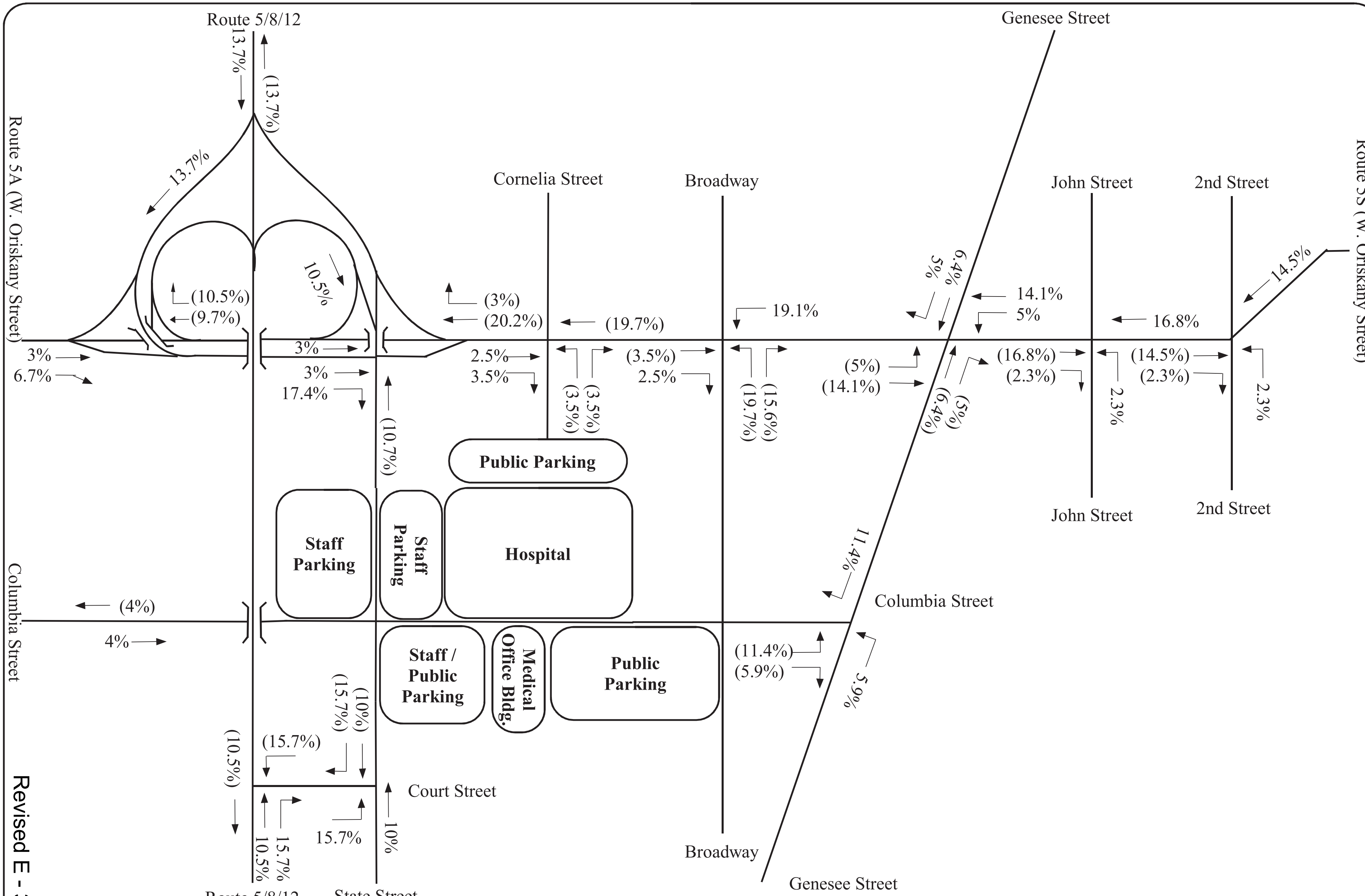
| | | Morning Peak Hour | | | Evening Peak Hour | | |
|---|---|---|---|---|---|---|---|
| **Development** | **Size** | **Total Trips** | **Entering** | **Exiting** | **Total Trips** | **Entering** | **Exiting** |
| Hospital | 3,645 Employees | 1130 | 814 | 316 | 1057 | 307 | 750 |
| Physician Office Bldg. | 80,000 SF | 191 | 151 | 40 | 286 | 80 | 206 |
| **Total Trips Generated** | | **1321** | **965** | **356** | **1343** | **387** | **956** |

# MVHS - Traffic Distribution Forecast - Primary Routes

| Zip Code | City | Patient Origin | Employee Origin | Origin/Detination Percentages | | | Primary Arrival / Departure Routes | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Percent Patients | Percent Employee | Percent Total | To/From South 12 | To/From North 12 | To/From West 5A | To/From East 5S | To/From South State | To/From South Gen | To/From North Gen | To/From South John | To/From South 2nd |
| 13501 | Utica | 5374 | 646 | 24.2% | 18.3% | 23.4% | 3.5% | | | 2.3% | 7.1% | 5.9% | | 2.3% | 2.3% |
| 13502 | Utica | 4352 | 706 | 19.6% | 20.0% | 19.7% | 4.9% | 3.9% | 2.0% | | 2.0% | | 6.9% | | |
| 13413 | New Hartford | 1852 | 326 | 8.4% | 9.2% | 8.5% | 7.6% | | | | 0.9% | | | | |
| 13440 | Rome | 1718 | 250 | 7.8% | 7.1% | 7.7% | | 3.1% | 3.1% | | | | 1.5% | | |
| 13323 | Clinton | 1177 | 196 | 5.3% | 5.6% | 5.3% | 5.3% | | | | | | | | |
| 13357 | Ilion | 1026 | 140 | 4.6% | 4.0% | 4.5% | | | | 4.0% | | | 0.5% | | |
| 13492 | Whitesboro | 997 | 264 | 4.5% | 7.5% | 4.9% | 0.5% | | 4.4% | | | | | | |
| 13350 | Herkimer | 842 | 69 | 3.8% | 2.0% | 3.5% | | | | 2.8% | | | 0.7% | | |
| 13340 | Frankfort | 679 | 133 | 3.1% | 3.8% | 3.2% | | | | 2.9% | | | 0.3% | | |
| 13309 | Boonville | 436 | 52 | 2.0% | 1.5% | 1.9% | | 1.9% | | | | | | | |
| 13403 | Marcy | 420 | 115 | 1.9% | 3.3% | 2.1% | | 2.1% | | | | | | | |
| 13417 | New York Mills | 393 | 82 | 1.8% | 2.3% | 1.8% | 0.9% | | 0.9% | | | | | | |
| 13365 | Little Falls | 375 | 49 | 1.7% | 1.4% | 1.7% | | | | 0.9% | | | 0.8% | | |
| 13407 | Mohawk | 340 | 48 | 1.5% | 1.4% | 1.5% | | | | 1.2% | | | 0.3% | | |
| 13456 | Sauqoit | 340 | 99 | 1.5% | 2.8% | 1.7% | 1.7% | | | | | | | | |
| 13438 | Remsen | 326 | 74 | 1.5% | 2.1% | 1.6% | | 1.6% | | | | | | | |
| 13424 | Oriskany | 307 | 38 | 1.4% | 1.1% | 1.3% | | | 1.3% | | | | | | |
| 13421 | Oneida | 274 | 41 | 1.2% | 1.2% | 1.2% | | | 0.8% | | | | 0.4% | | |
| 13480 | Waterville | 252 | 48 | 1.1% | 1.4% | 1.2% | 1.2% | | | | | | | | |
| 13495 | Yorkville | 246 | 51 | 1.1% | 1.4% | 1.2% | | | 1.2% | | | | | | |
| 13491 | West Winfeild | 227 | 34 | 1.0% | 1.0% | 1.0% | 0.6% | | | 0.4% | | | | | |
| 13354 | Holland Patent | 212 | 68 | 1.0% | 1.9% | 1.1% | | 1.1% | | | | | | | |
| **Total** | | **22165** | **3529** | **100.0%** | **100.0%** | **100.0%** | **26.2%** | **13.7%** | **13.7%** | **14.5%** | **10.0%** | **5.9%** | **11.4%** | **2.3%** | **2.3%** |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Trip Generation** | **Morning Peak Hour** | **965** | **Enter** | **254** | **132** | **132** | **140** | **97** | **57** | **110** | **22** | **22** |
| | | **357** | **Exit** | **94** | **49** | **49** | **52** | **36** | **21** | **41** | **8** | **8** |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Trip Generation** | **Evening Peak Hour** | **387** | **Enter** | **101** | **53** | **53** | **56** | **39** | **23** | **44** | **9** | **9** |
| | | **956** | **Exit** | **250** | **131** | **131** | **139** | **96** | **56** | **109** | **22** | **22** |




Revised E - 38

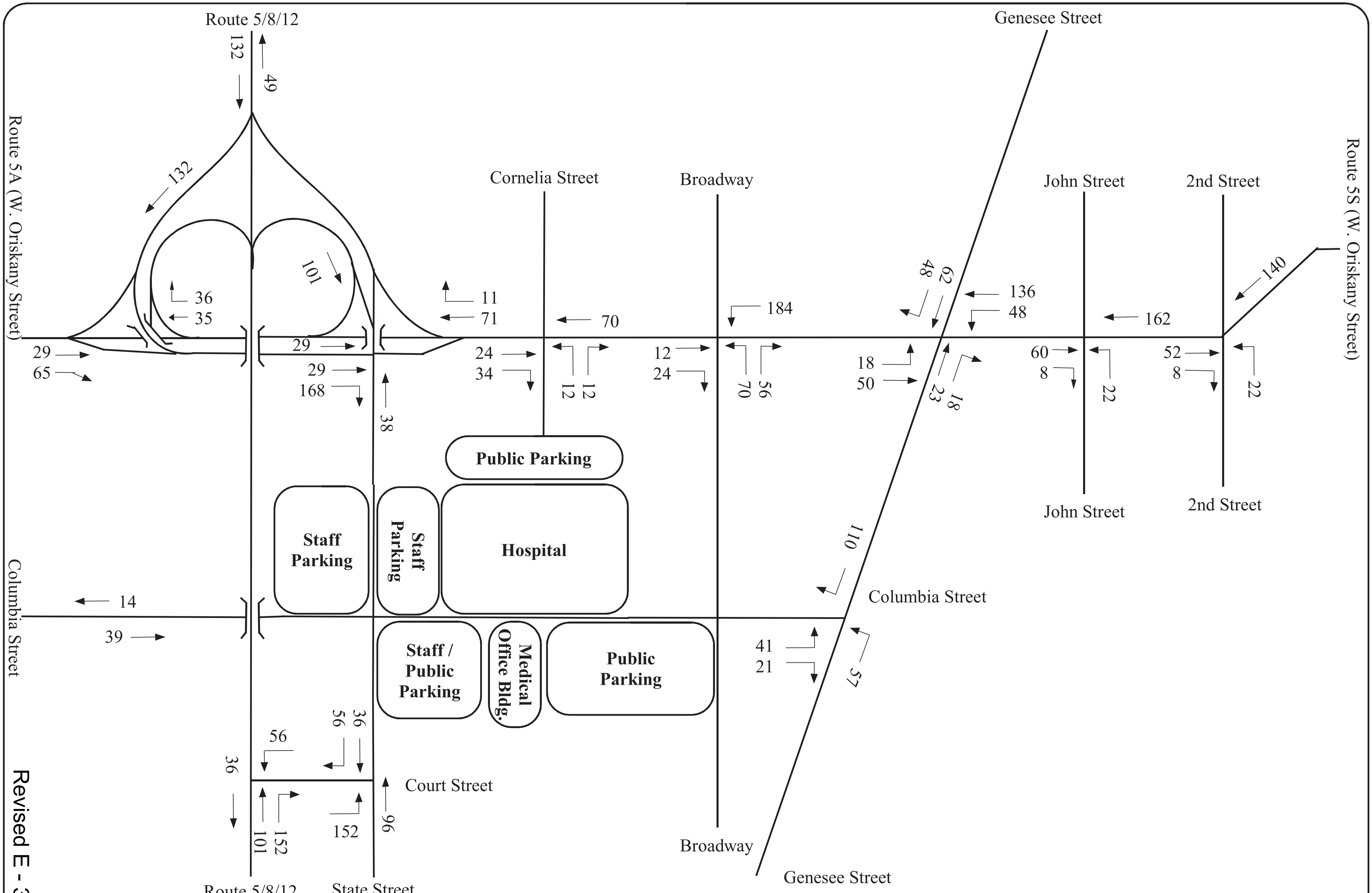
**Proposed MVHS - Utica, NY**

Arrival / Departure Trip Distribution

Entering (Exiting) Trip Percentage

**Figure 1**

**GTS Consulting**



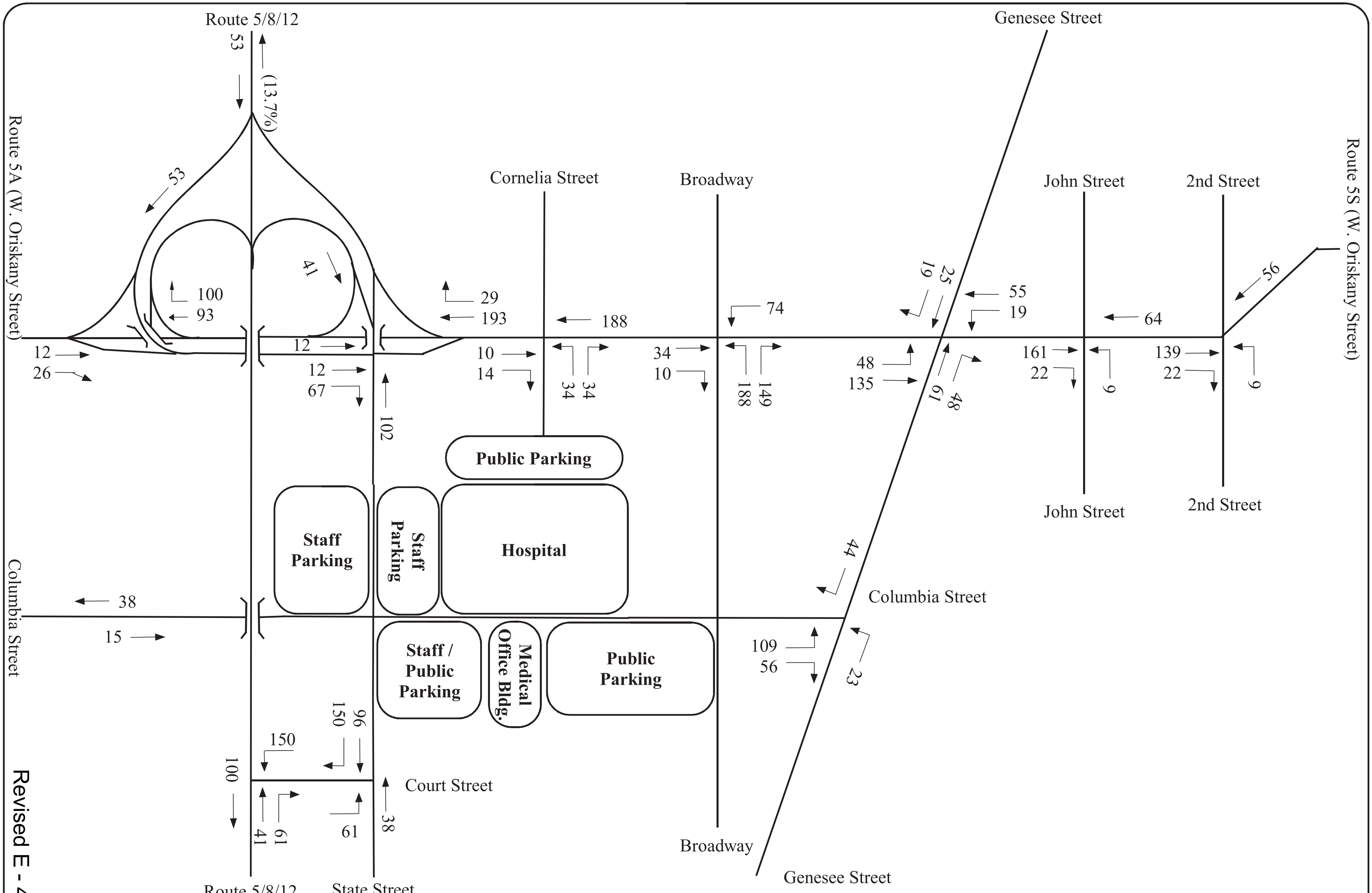



**Proposed MVHS - Utica, NY**

Trips Generated
Morning Peak Hour

GTS Consulting

**Figure 2**




Revised E - 40

**Proposed MVHS - Utica, NY**

Trips Generated
Evening Peak Hour

**Figure 3**

# Public & Staff Parking - Arrival


Hammes Company
The shortest distance between idea and reality.®

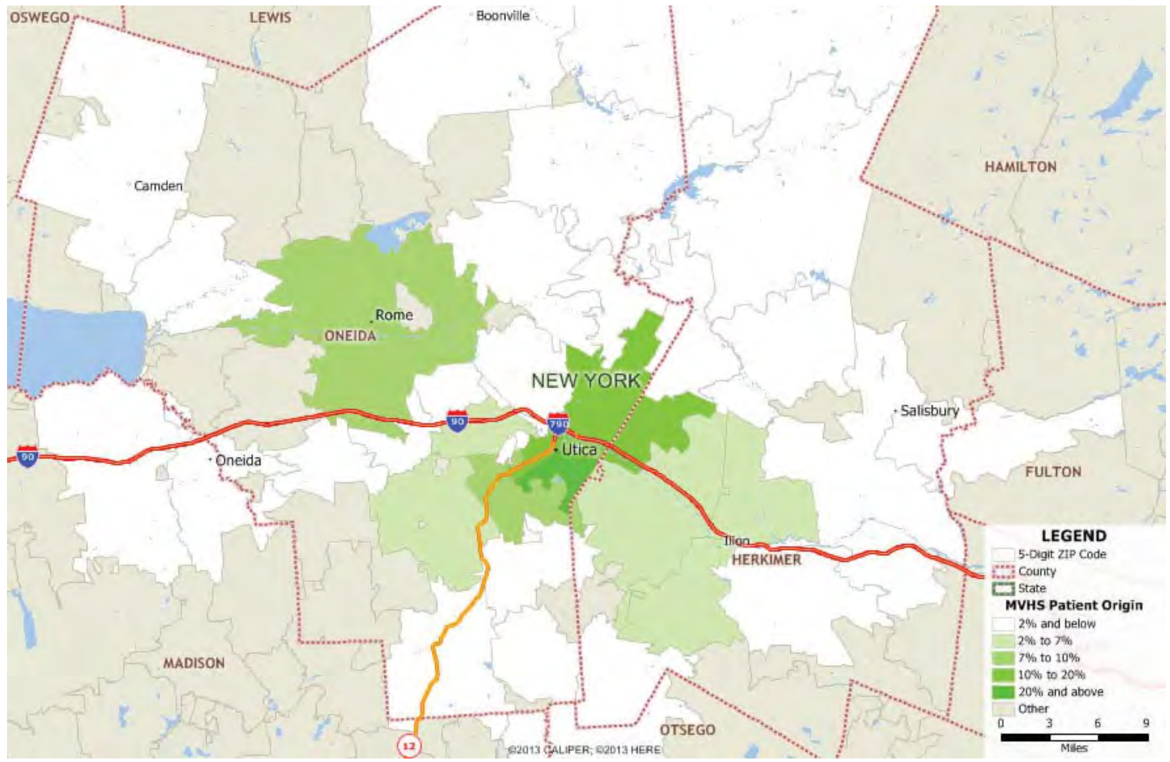
# Public & Staff Parking - Departure


Hammes Company

The shortest distance between idea and reality.®

# MVHS Patient Origin

| Zip Code | MVHS Disch | Pat Orig |
|---|---|---|
| 13501 | 5,374 | 22.3% |
| 13502 | 4,352 | 18.1% |
| 13413 | 1,852 | 7.7% |
| 13440 | 1,718 | 7.1% |
| 13323 | 1,177 | 4.9% |
| 13357 | 1,026 | 4.3% |
| 13492 | 997 | 4.1% |
| 13350 | 842 | 3.5% |
| 13340 | 679 | 2.8% |
| 13309 | 436 | 1.8% |
| 13403 | 420 | 1.7% |
| 13417 | 393 | 1.6% |
| 13365 | 375 | 1.6% |
| 13407 | 340 | 1.4% |
| 13456 | 340 | 1.4% |
| 13438 | 326 | 1.4% |
| 13424 | 307 | 1.3% |
| 13421 | 274 | 1.1% |
| 13480 | 252 | 1.0% |
| 13495 | 246 | 1.0% |
| 13491 | 227 | 0.9% |
| 13354 | 212 | 0.9% |




Hammes Company

The shortest distance between idea and reality.

| FSL & SEMC EMPLOYEE CITY | | | | | |
|---|---|---|---|---|---|
| RANK | ZIP | # EMP | PERCENT | CITY | |
| 1 | 13502 | 706 | 16.6% | UTICA (31.8%) | TOP 10 TOTALS (67.6%) |
| 2 | 13501 | 646 | 15.2% | UTICA | |
| 3 | 13413 | 326 | 7.7% | NEW HARTFORD | |
| 4 | 13492 | 264 | 6.2% | WHITESBORO | |
| 5 | 13440 | 250 | 5.9% | ROME | |
| 6 | 13323 | 196 | 4.6% | CLINTON | |
| 7 | 13357 | 140 | 3.3% | ILION | |
| 8 | 13340 | 133 | 3.1% | FRANKFORT | |
| 9 | 13403 | 115 | 2.7% | MARCY | |
| 10 | 13456 | 99 | 2.3% | SAUQUOIT | |
| 11 | 13417 | 82 | 1.9% | NEW YORK MILLS | |
| 12 | 13438 | 74 | 1.7% | REMSEN | |
| 13 | 13350 | 69 | 1.6% | HERKIMER | |
| 14 | 13354 | 68 | 1.6% | HOLLAND PATENT | |
| 15 | 13309 | 52 | 1.2% | BOONVILLE | |
| 16 | 13495 | 51 | 1.2% | YORKVILLE | |
| 17 | 13365 | 49 | 1.1% | LITTLE FALLS | |
| 18 | 13480 | 48 | 1.1% | WATERVILLE | |
| 19 | 13407 | 48 | 1.1% | MOHAWK | |
| 20 | 13416 | 44 | 1.0% | NEWPORT | |
| 21 | 13421 | 41 | 1.0% | ONEIDA | |
| 22 | 13304 | 40 | 0.9% | BARNEVELD | |
| 23 | 13424 | 38 | 0.9% | ORISKANY | |
| 24 | 13491 | 34 | 0.8% | WEST WINFIELD | |
| 25 | 13431 | 32 | 0.8% | POLAND | |

# Example Emergency Operations Plan (Table of Contents)

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**OBG**

THERE'S A WAY